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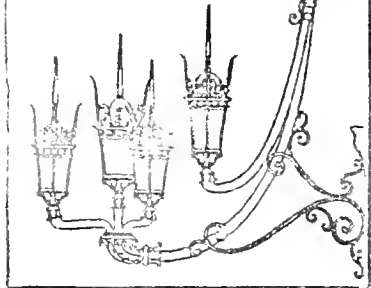
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A Design Strategy for the Central Artery Corridor
Boston, Massachusetts
Chan Krieger Levi Architects
Presented To The Boston Redevelopment Authority - September 1989

After the Central Artery



This document anticipates the scene in the above photograph -- taken in the early 1950s when Boston's Central Artery was under construction -- being enacted in reverse. It looks forward to the removal of the above-ground highway and suggests a design strategy for the corridor of land that the depression of the highway will once more make available for civic uses.

This work grew out of the Boston Redevelopment Authority's ongoing efforts to assess conceptual design and land-use alternatives for the land above the depressed artery. The work is predicated on the belief that the remarkable engineering venture upon which the city is embarking should foremost be a means of improving the physical environment of downtown Boston. The improvement of traffic should be the minimum goal, a catalyst for undertaking the project. The broader, and far more noble goal, must be a better designed and more beautiful downtown public environment. Therefore, what should govern the engineering work for the new tunnel and ramp system is a vision of Boston's downtown as we would like it to be following the relocation of the artery. An urban design plan is needed in order to proceed wisely with the engineering efforts underway. This report identifies one way of conceptualizing about what this area of Boston might become.

Four Urban Design Models for the Central Artery

During the past two years, the Staff of the Boston Redevelopment Authority and its consultants have investigated diverse land-use concepts for the Central Artery corridor. With the participation of the State Artery Team and the Boston Society of Architects four alternative land-use models -- purposefully diverse in uses and physical character -- have been explored. These range from a continuous park with perimeter housing to a mixed use infill redevelopment of the entire artery corridor.

This report is an elaboration of one of these four models. It is presented as a potential consensus plan seeking to balance the desirability of creating major new park and civic spaces for the downtown, with the desirability of healing the scar caused by the elevated highway by the use of infill development. The four alternative scenarios are summarized below.

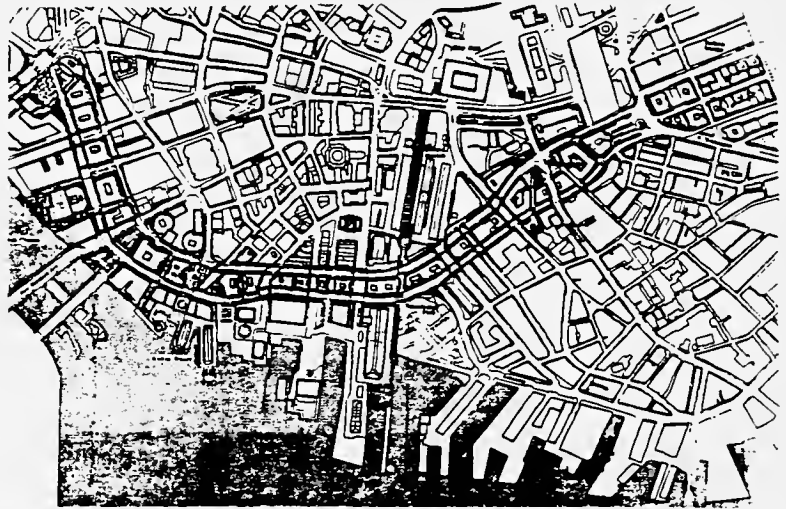


Model One: A Continuous Park with Family Housing The City of Boston

This concept is influenced by the 19th century theories and work of Frederick Law Olmsted who believed in the civilizing virtues of urban open space, and who advocated an integrated metropolitan-wide park network as a means of insuring the habitability of a rapidly expanding city. The concept focuses about a linear boulevard -- similar in character to Commonwealth Avenue -- between Haymarket Square and Dewey Square. More than 16 acres of park space would be added to the city which, over the course of the last quarter century, has added only 1.5 acres of new parkland while accommodating more than 20 million square feet of new development.

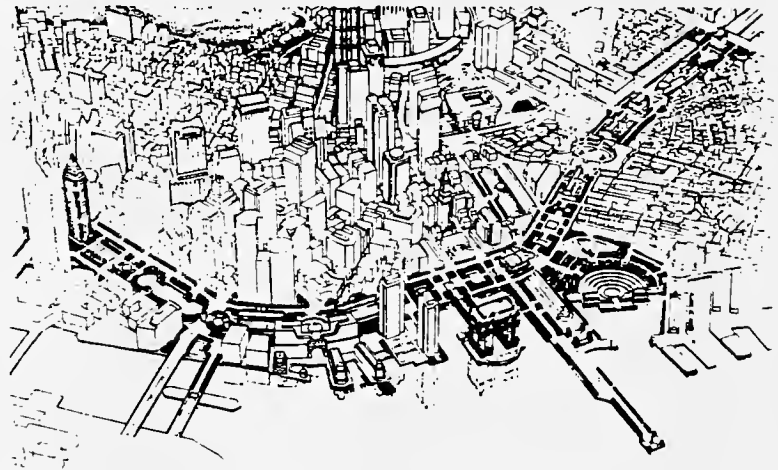
Model Two: Mixed Use Infill Along the Artery Corridor
Commonwealth of Massachusetts & Boston Society of Architects

This concept aims first to restore the continuity of streets and blocks severed by the elevated artery. It is a contextually sensitive approach which seeks to "reweave" the city's fabric with traditionally-scaled streets and blocks filled with modestly-scaled dwellings, offices, shops, parking garages and open spaces.



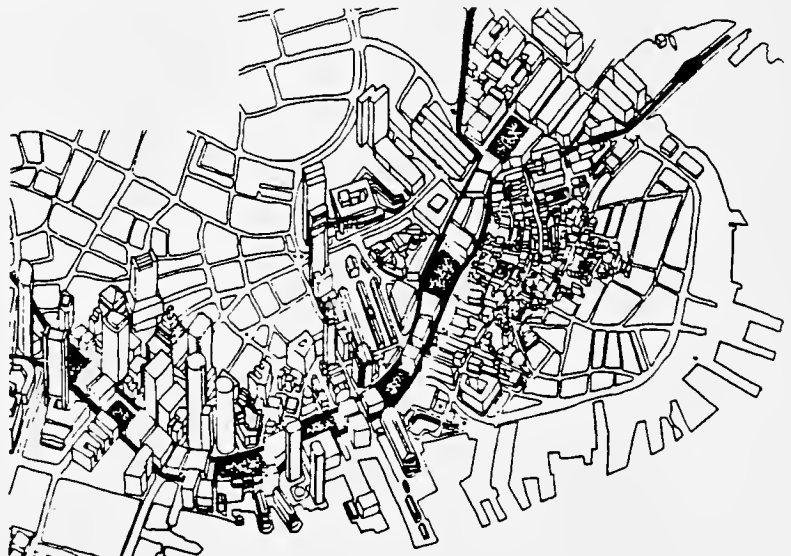
Model Three: A Grand Boulevard of Public Grounds and Buildings
Ricardo Bofill, Taller Architecture

This neo-classically inspired design establishes a geometric order along the artery corridor composed of formal gardens and public buildings. The potential of designing such a major section of the city at once leads to the projection of a memorable new environment for Boston.



Model Four: Two Avenues linked by a Set of Squares
Chan Krieger Levi Architects

This proposal takes advantage of the opportunity to create two new major north-south streets defined both by infill development and a set of sequential park-like squares, each specifically associated with a district along the corridor. This approach is the subject of this report.





Aerial View of Boston circa 1930

For many such a photograph has come to represent an idealized "Before the Artery" state of Boston's downtown: a tightly knit web of streets and squares forming a continuous and homogenous urban fabric. Into this fabric, an argument goes, the construction of the Central Artery inserted an unsightly and divisive seam, as demonstrated by the figure-ground diagram on the facing page.



Contemporary Figure-Ground Diagram of Central Boston

An important goal of the depression of the Central Artery should be to repair the seam caused by the highway. This seam, however, is now also a part of Boston's history and geography. A double challenge, therefore, exists: to repair the tear in the traditional fabric while taking advantage of the rare opportunity to design this seam in a comprehensive way. In this manner the city would gain one more discernable fabric in the tradition of its historic topographical transformations, each of which has left its imprint upon the city.

Two Avenues Linked by a Set of Squares

The depression of the Central Artery will require two one-way surface streets along the artery corridor to serve local traffic and provide access to and from the new tunnel. This strategy for the corridor would seize on the civic potential of these two surface arteries. Rather than envisioning a single post-artery spine through the downtown, it is possible to conceive of (and design) these two streets as two new major north-south avenues for the city.

The two interdependent avenues, one nearer to the waterfront and bounding the North End, the other bordering the densest parts of the downtown, would share a common traffic purpose, and be periodically joined by a set of park-like squares. The character of each square and of the land uses surrounding it would be determined in part by its host district.

Such a pattern of paired avenues, infill development and sequential open spaces would be comprehensible at a city-wide scale, but moulded by local conditions. Precedents in other cities are easily identified: Georgian London, or Princes, George and Queen Streets forming a grid of residential parks in Edinburgh or the checkerboard pattern of street and square in Savannah or Clark and Dearborn Streets in Chicago and their cadence of the 'Picasso,' 'Chagall' and 'Miro' squares. There is even an antecedent in Boston in the never realized vision of Robert F. Gourlay who in 1844(!) proposed a three-mile long crescent of three boulevards and a series of circles and squares surrounding a newly-defined Charles River Basin.

Five simple principles guide this strategy and are elaborated on the following pages:

Principle One: Reconnect and Give Priority to the "Fingers to the Sea"

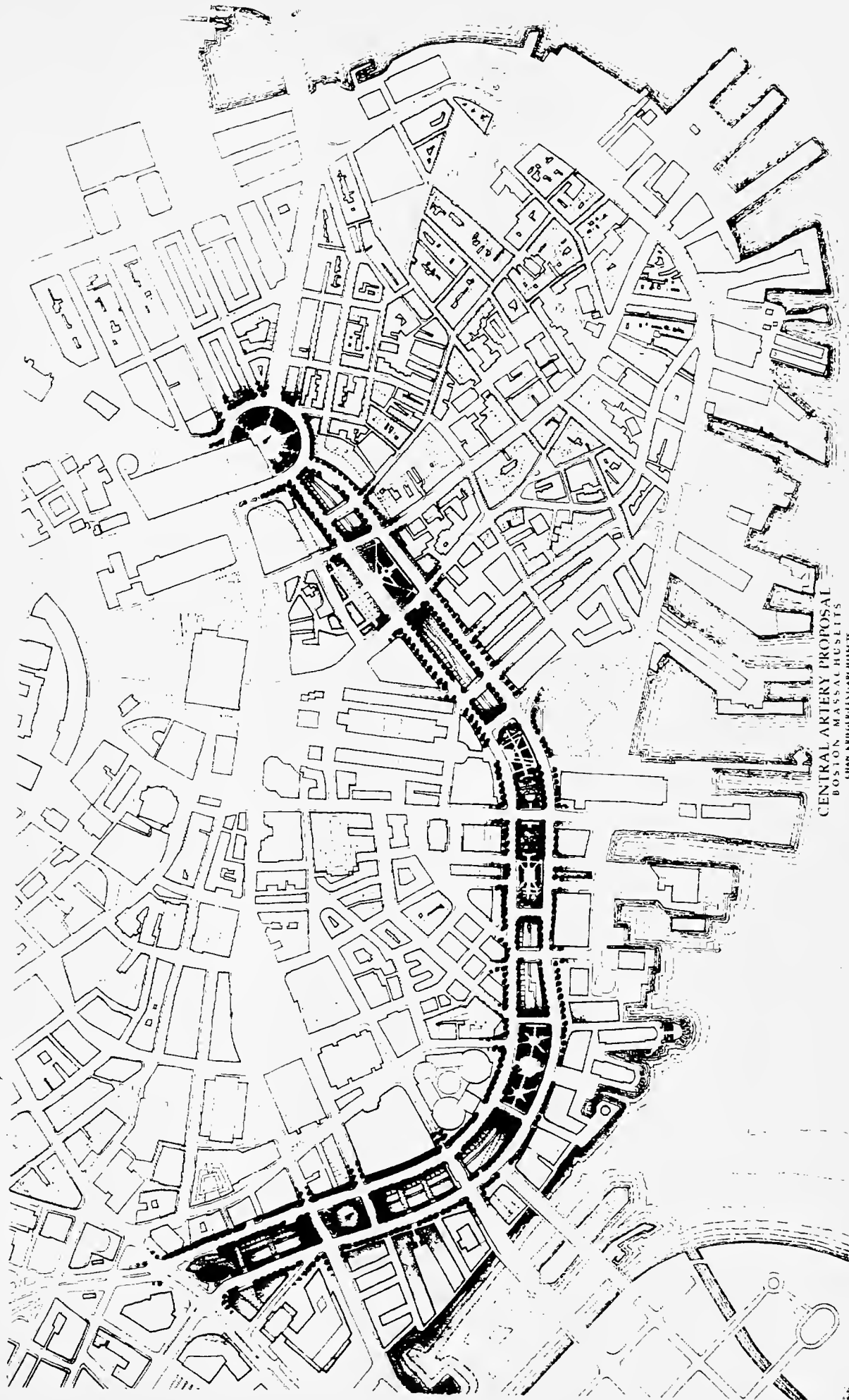
Principle Two: Design Two New North-South Avenues as Major Additions to the City Street Network

Principle Three: Maintain Neighborhood Definition and Establish a Public Space as a Locus of Each District Along the Corridor

Principle Four: Extend Boston's Tradition of Park-like Squares by Adding to This Network

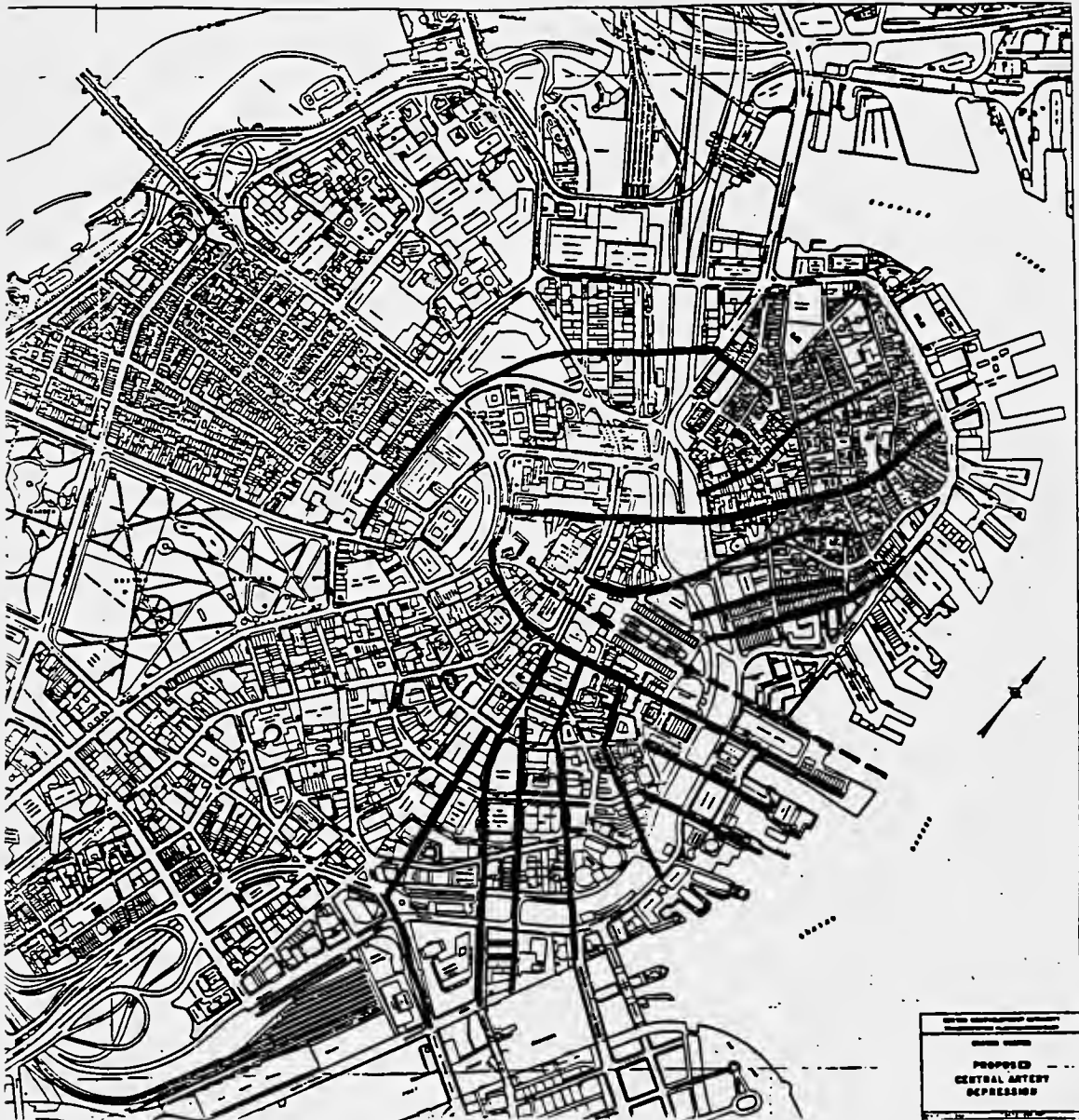
Principle Five: Wherever Possible Allow Housing to be a Primary Land Use Along the New Artery Corridor

Two avenues and a set of squares. The magnitude of the undertaking--like the magnitude of the artery--would be forever recorded in the continuous network formed by the avenues and squares. The city would gain another discernable fabric, in the tradition of its historic topographical transformations, each of which has left its imprint on the city. At the same time, the needs, aspirations and influences of each neighborhood would be felt in the shape, land use and physical character of the individual squares.



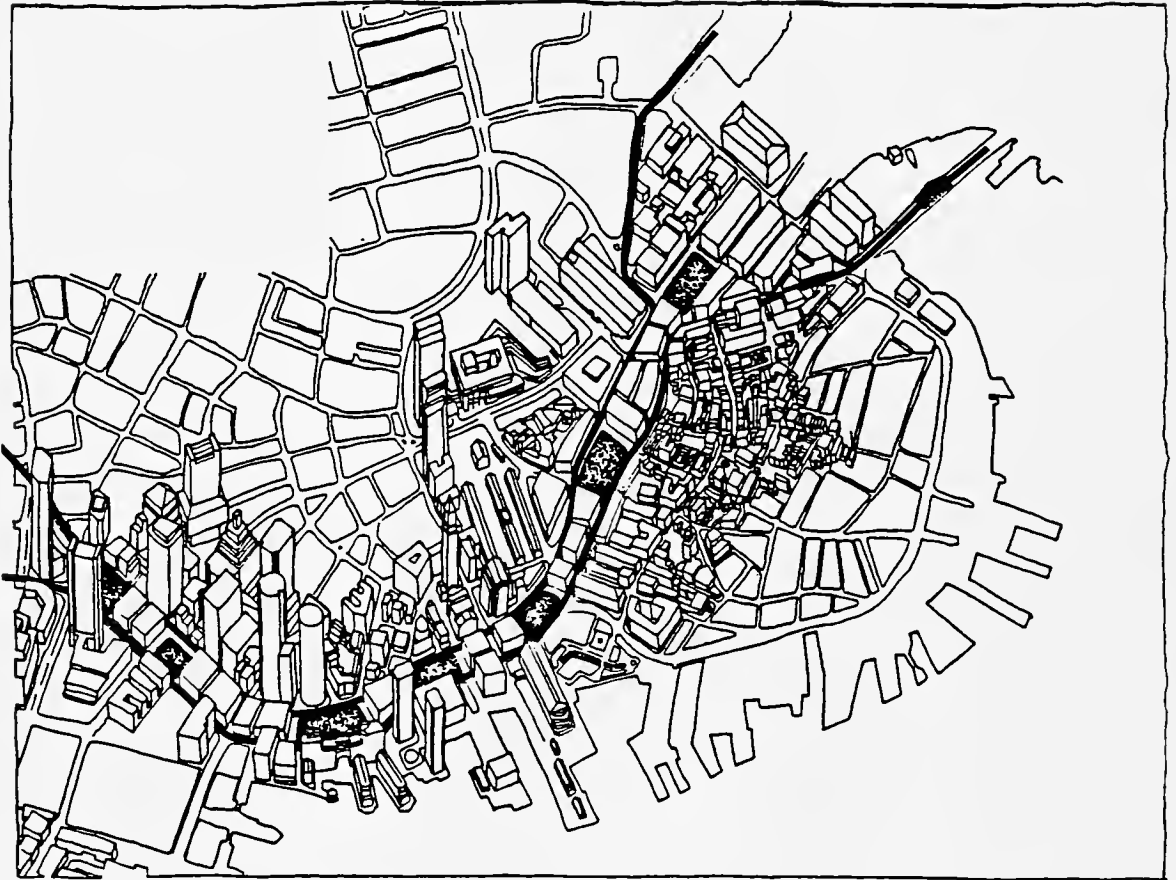
CENTRAL ARTERY PROPOSAL
BOSTON, MASSACHUSETTS
JOHN AUGER-LEVIN ARCHITECTS
GENERAL CONTRACTOR: [unreadable]

**Principle One:
Reconnect and Give Priority to the "Fingers to the Sea"**



Since its initial settlement Boston has looked seaward for its economic, cultural and (more recently) recreational welfare. This is best demonstrated by its web of streets moving radially from the center of the peninsula toward the water's edge. The artery eliminated some of these fingers and severed others. With the depression of the artery it becomes possible to re-assert these fingers and the direction of their movement.

**Principle Two:
Create Two New North-South Streets: A Pair of Interdependent
Avenues**

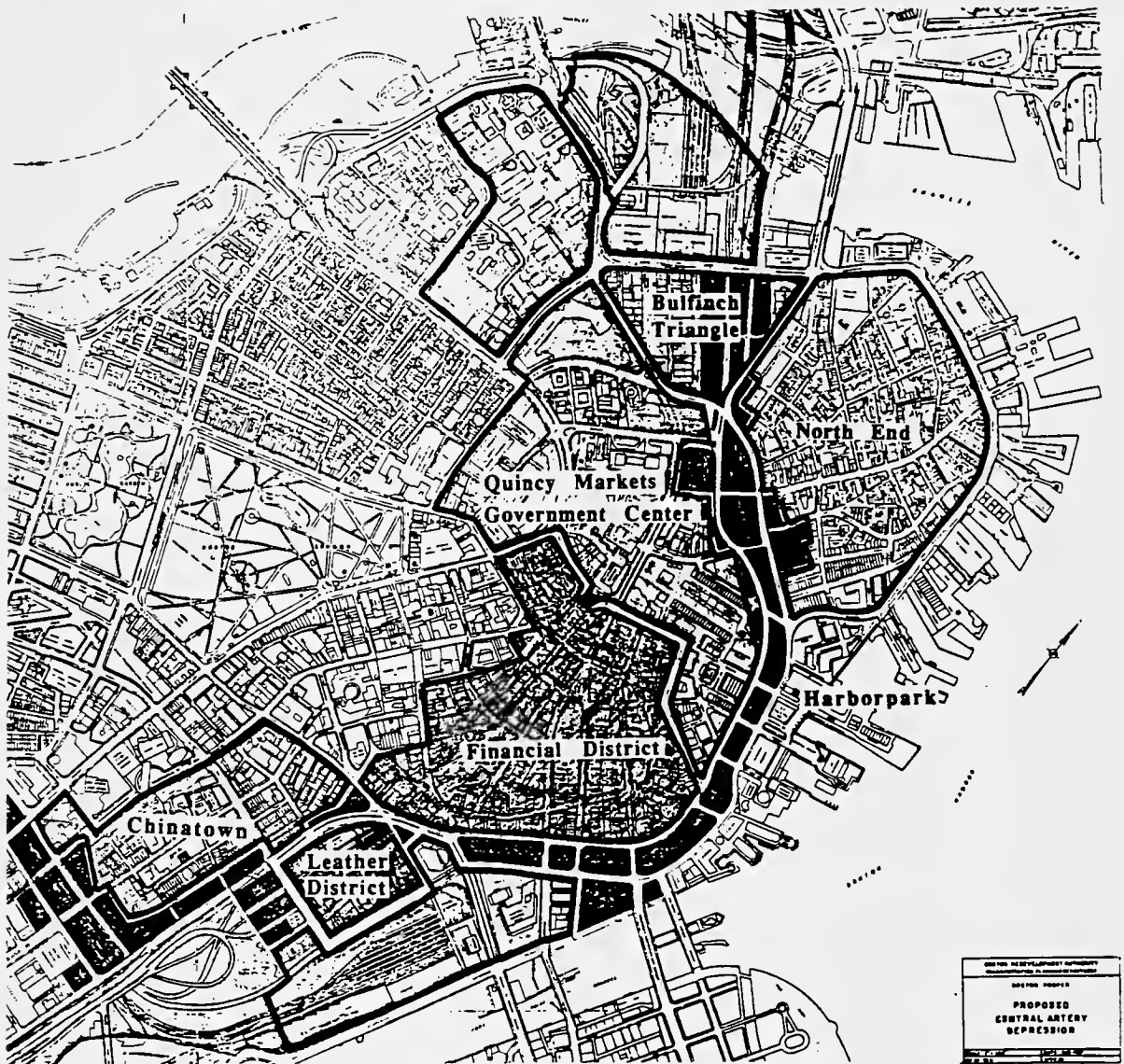


These avenues would provide Boston with the improved north-south connection that it has sought for its downtown for a century. The pair of avenues would be generally parallel but follow their own precise alignment. They would be similar in scale but somewhat autonomous in character; responding first to their own adjacencies and place within the city, but together enhancing the legibility of the north-south corridor of movement through the downtown.

At their extremities the avenues would be most independent; beginning separately as Merrimac and North Washington Streets (defining the Bulfinch Triangle) to the north, and as South Atlantic and Purchase Streets (defining the Leather District and edging Chinatown) to the south. At Dewey Square and at the tip of the Bulfinch Triangle, as the 'tuning forks' narrow, the avenues would first become perceivable as a pair, united by newly designed squares whose names evoke venerable old Boston places.

Principle Three:

Maintain Neighborhood Definition and Establish a Public Space as a Locus of Each District Along the Corridor

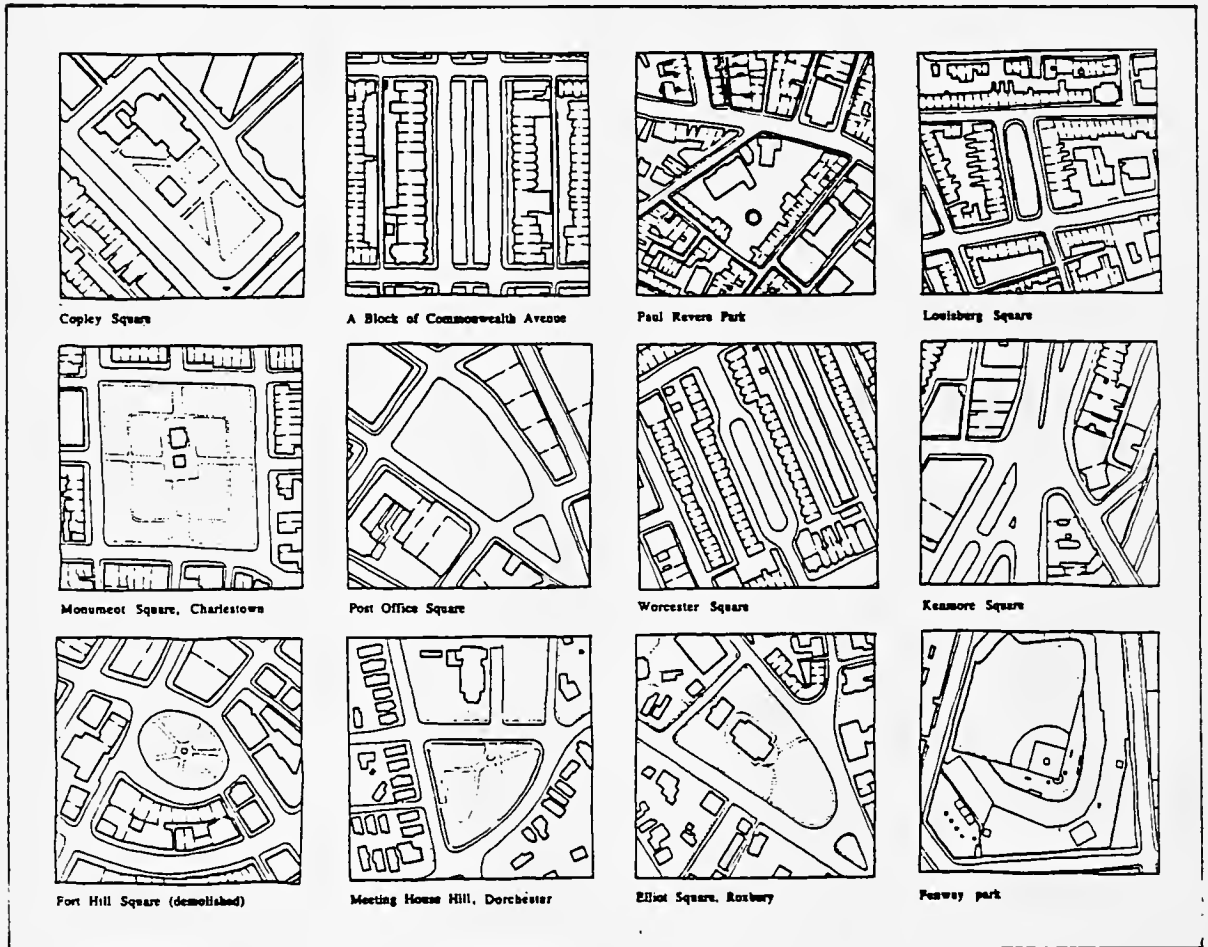


Another characteristic of Boston is its group of well defined neighborhoods and districts. Along the artery corridor there are at least seven including Chinatown, the Leather District, the Financial District, the modern waterfront (Harborpark) district, the Quincy Market/Government Center area, the North End, and the Bulfinch Triangle.

While the two avenues and their sequence of squares would be a grand city-wide amenity--functioning as a kind of umbilical cord for the downtown--each square would become a new or re-established node for one of the districts.

**Principle Four:
Extend Boston's Tradition of Park-like Squares by Adding to This
Network**

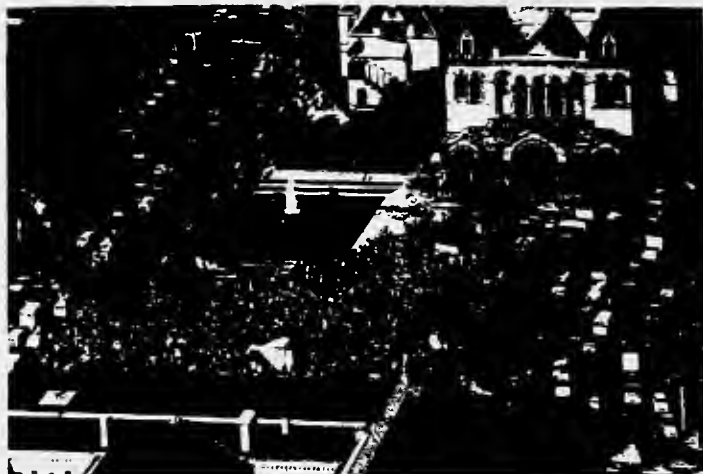
By drawing a dozen of Boston's best known squares at the same scale, the diagram below illustrates that Boston has long been a city of intimate squares and small park-like open spaces.



As the two avenues move in tandem through the various districts between Dewey Square and the Bulfinch Triangle each district might "sponsor" its own square or park. Some would re-establish an old place, for example, Fort Hill Square, often still labeled on city street plans but, since the construction of the artery, no longer existing as a place. Others might be the occasion for creating a new public place which over time would become synonymous with a district. This would continue (and maybe even accelerate) the process by which an important local node or intersection comes to be called a square, and gradually is transformed to become an actual public place. Dock Square, Copley Square, Post Office Square are the most familiar of those Boston places that have experienced such an evolution.

Copley Square as a Prototype:

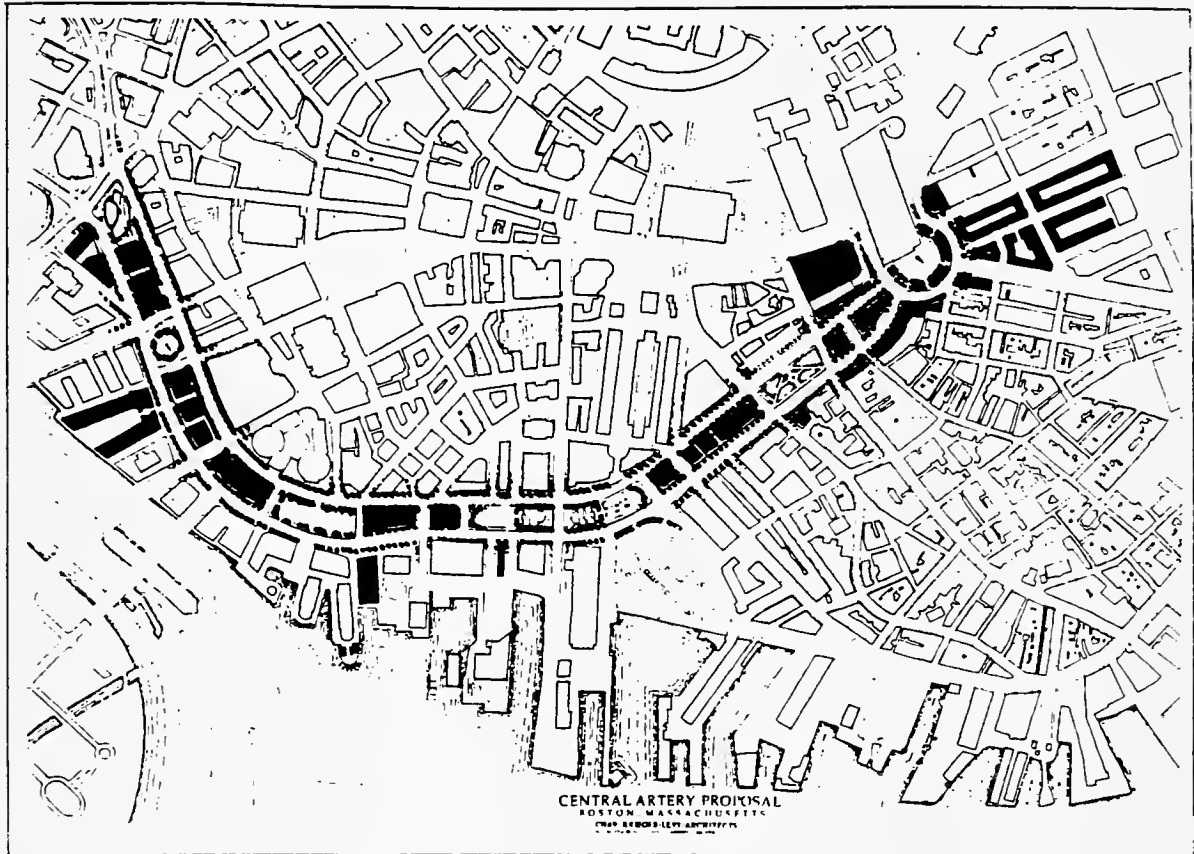
Among the most beloved -- not to mention the most frequently redesigned -- of Boston's squares is Copley Square. It simultaneously functions as urban foyer, cross-roads, common ground, ceremonial gathering place, and quiet refuge. Imagine seven new Copley Squares replacing the elevated artery.



A Fantasy of Seven New Copley Squares for Boston

Principle Five:

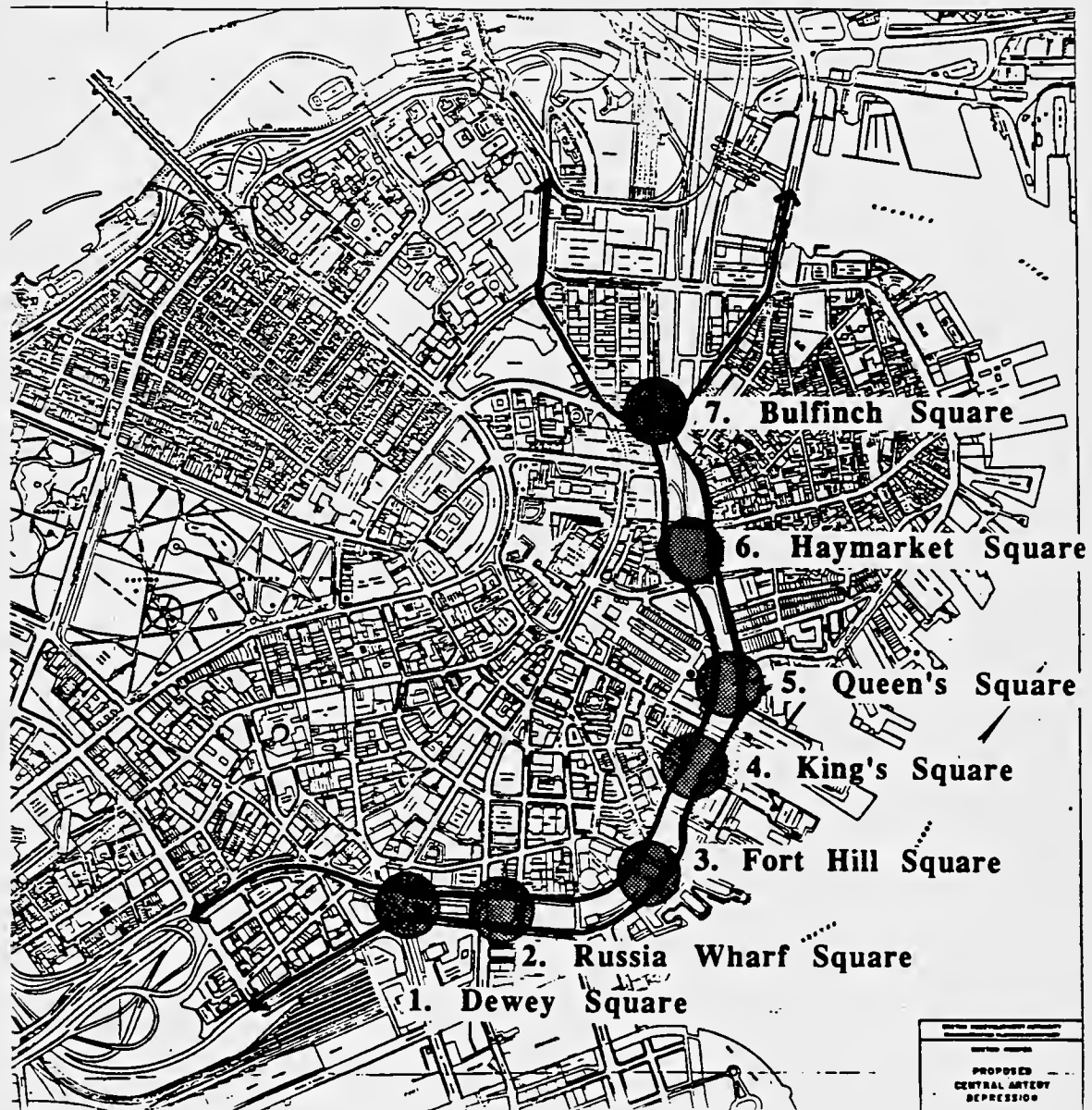
Wherever Possible Allow Housing to be a Primary Land Use Along the New Artery Corridor



Boston's urbanity--and uniqueness among American cities--is largely the result of its intricate array of distinguished residential neighborhoods in close proximity to the commercial and business core. As it becomes increasingly difficult to find and finance sites in the downtown for housing, the opportunity presented by the reconstruction of the Central Artery--of sizable parcels of land in the public domain--should be seized for the purpose of adding to Boston's downtown housing stock.

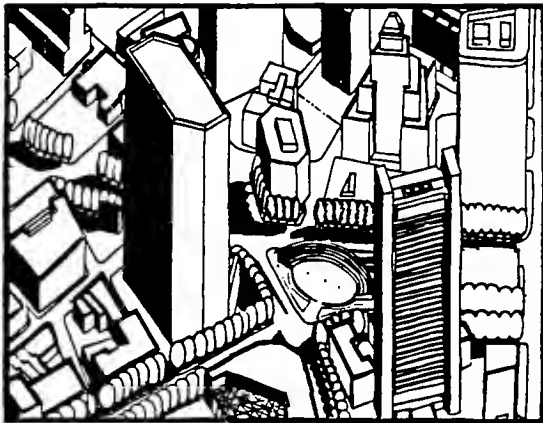
This is especially true in the areas adjacent to the North End where there is a great need for more housing, and where housing would be an excellent means of reuniting the North End with the Bulfinch Triangle and the Blackstone Block. Housing as a use along the artery corridor should be studied for other areas along the artery corridor, such as the financial district which is one of the few sections of Boston with almost no housing.

Assembling the Principles:
Two New Avenues Linked by a Set of Squares



The diagram illustrates the network formed by the new paired avenues and the seven new squares. On the following pages the squares are highlighted individually with a first attempt to establish a character for each.

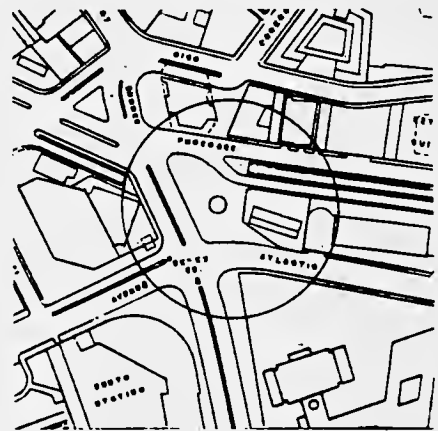
1. Dewey Square

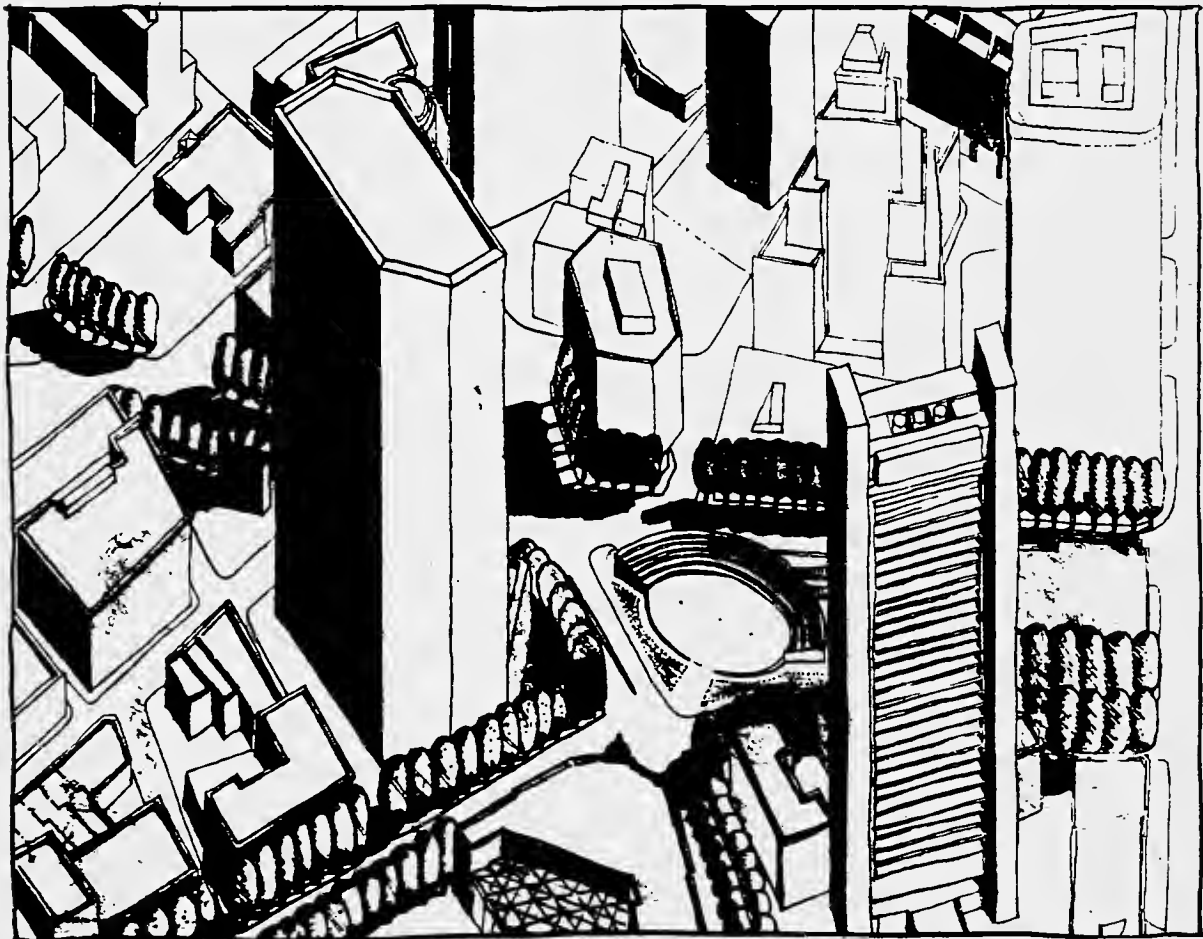
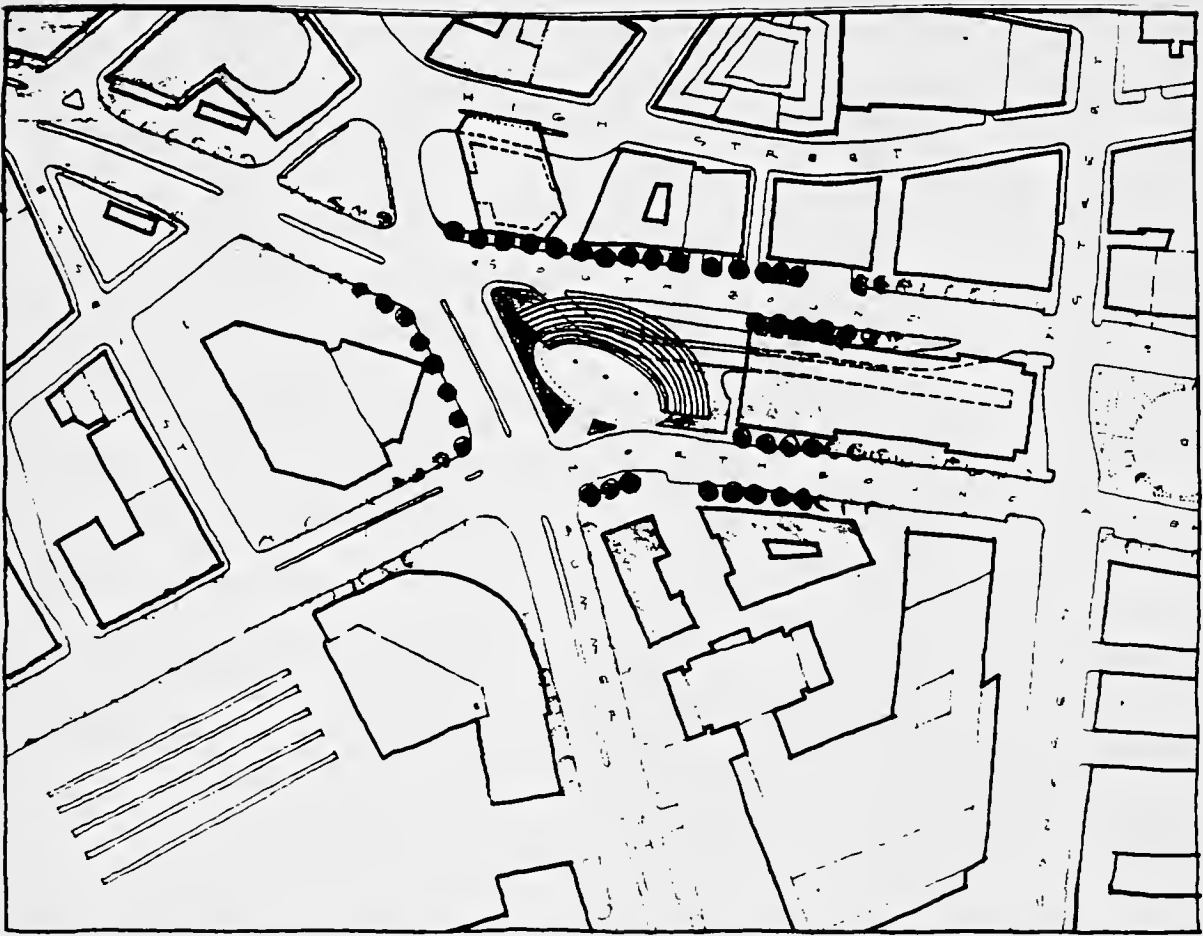


1. Dewey Square

As a place Dewey Square illustrates a common Boston dilemma of a complex intersection of streets referred to as a square but possessing very few of the characteristics that one associates with public squares. As the "foyer" to South Station and a gateway to the downtown from the station, Dewey Square certainly deserves to become a great public square. Tunnel ramps, MBTA access points, unusually wide streets, and odd geometries of surrounding buildings and site will all make it difficult to achieve, but the goal should remain.

The sketches fantasize about a place with a civic-scaled grandstand (which obscures the tunnel ramps behind it) facing South Station and welcoming people as they arrive into the heart of the city.



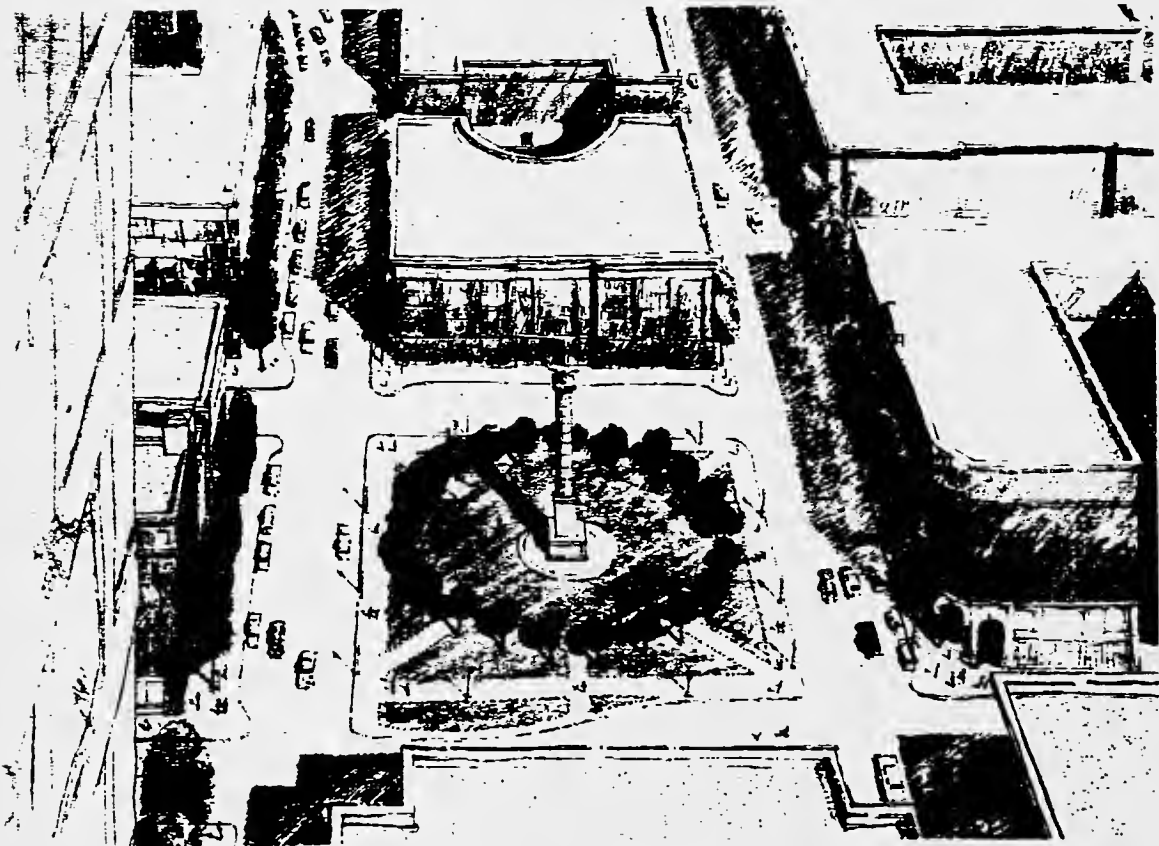
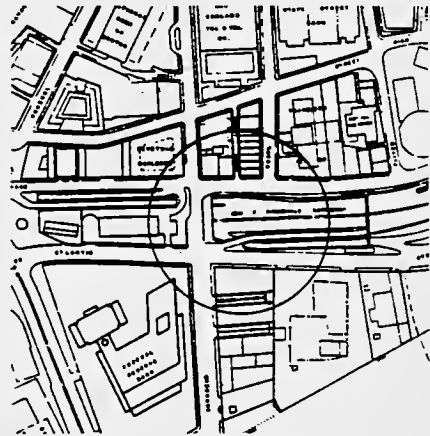


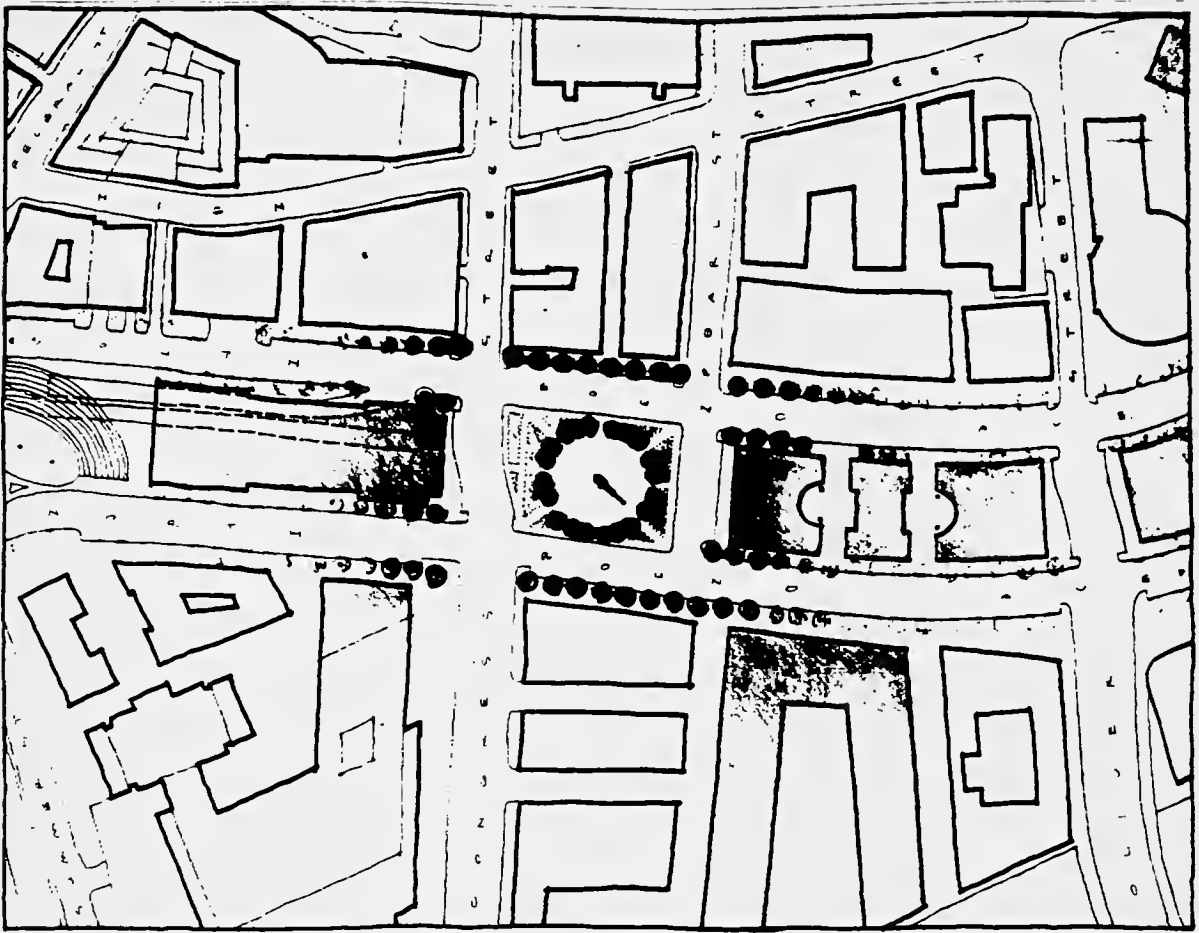
2. Russia Wharf Square



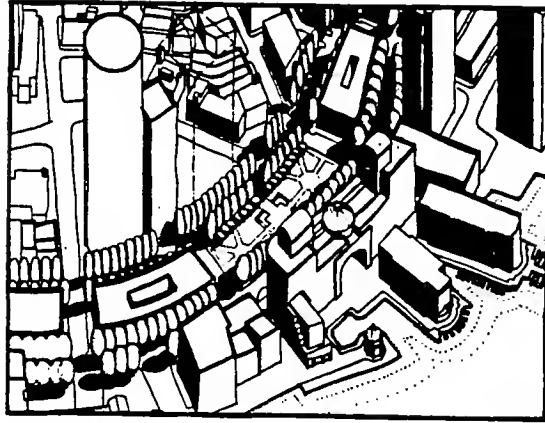
2. Russia Wharf Square

While not the site of a historic Boston square, this site represents a likely spot for a new urban square to flourish. It is a simple rectangular block at the crossing of four streets; the two new artery corridor avenues, Congress Street and Pearl Street. It is a place which can serve well the Financial District's need for more park and open space. And as the sketches suggest, it can acquire a strong spatial character by the combination of the handsome existing buildings (like Russia Wharf) and two new infill buildings within the artery corridor.



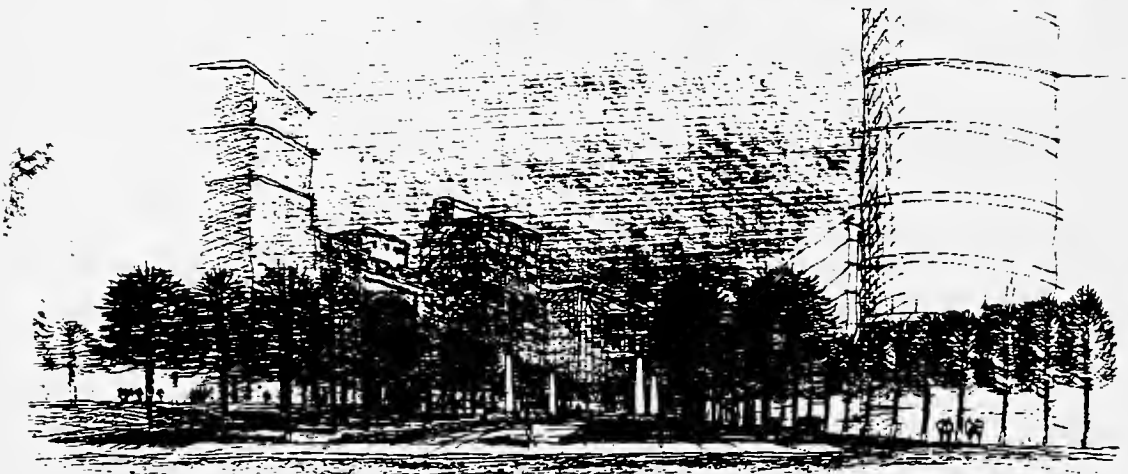
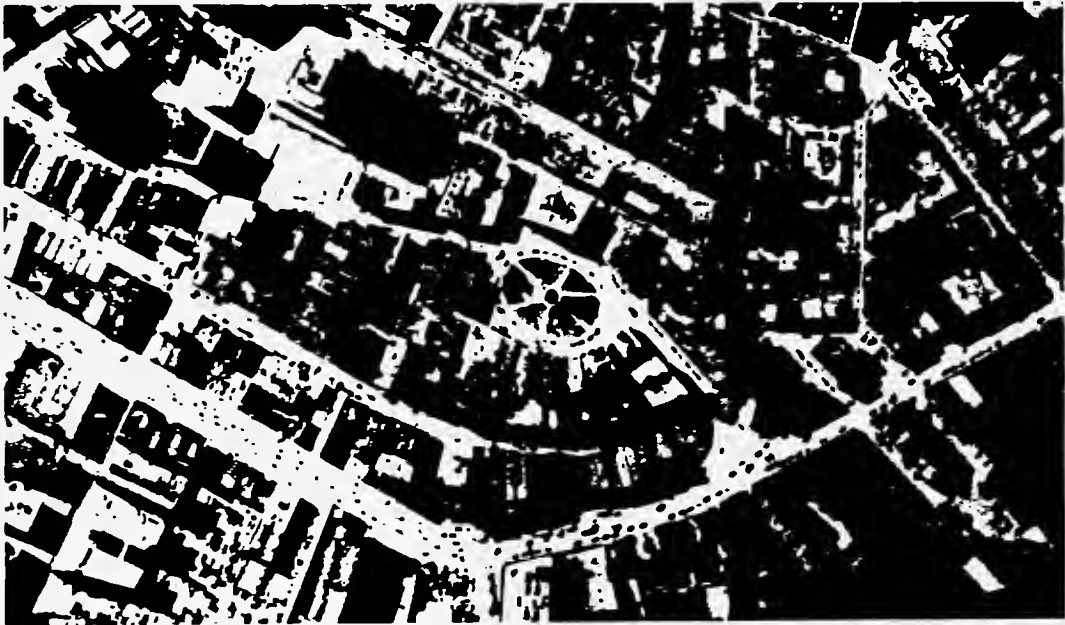


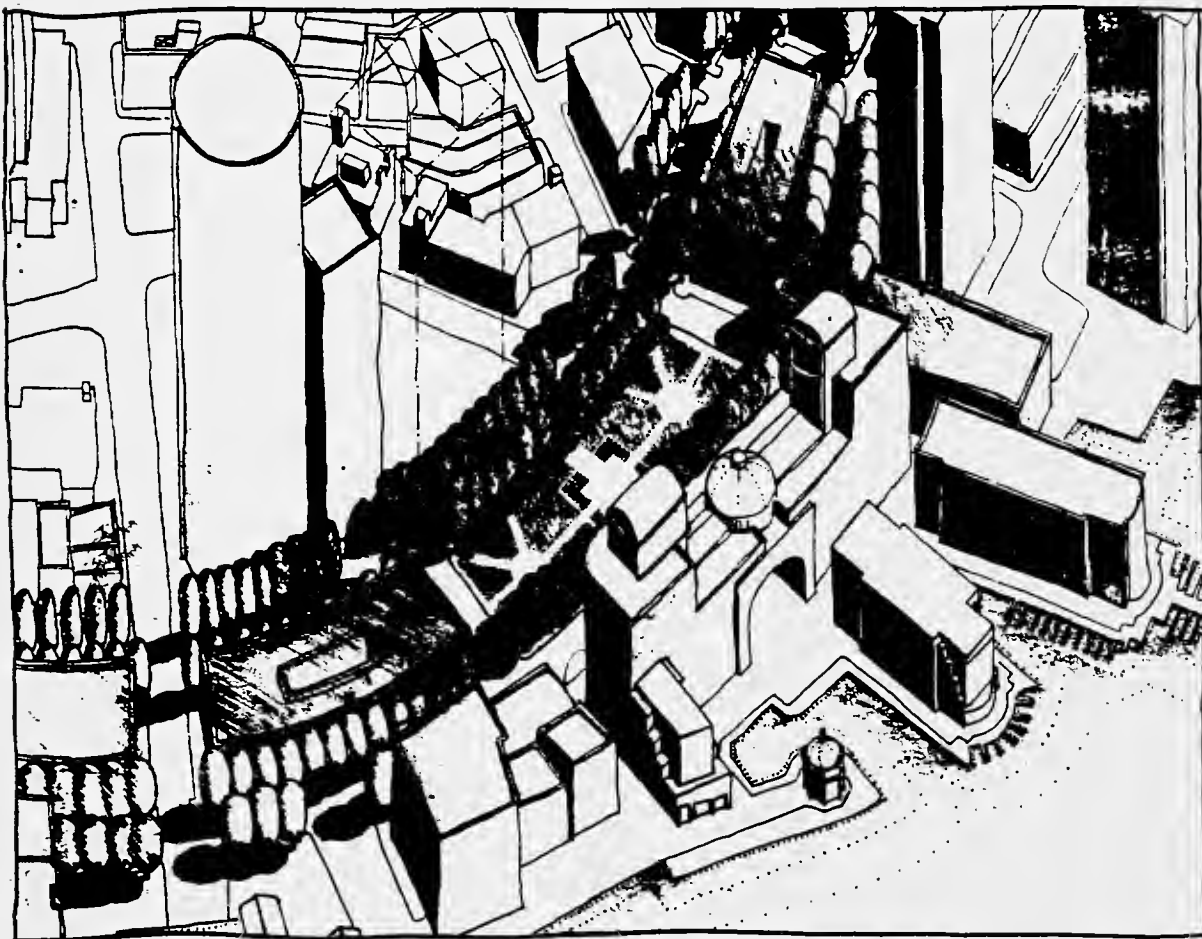
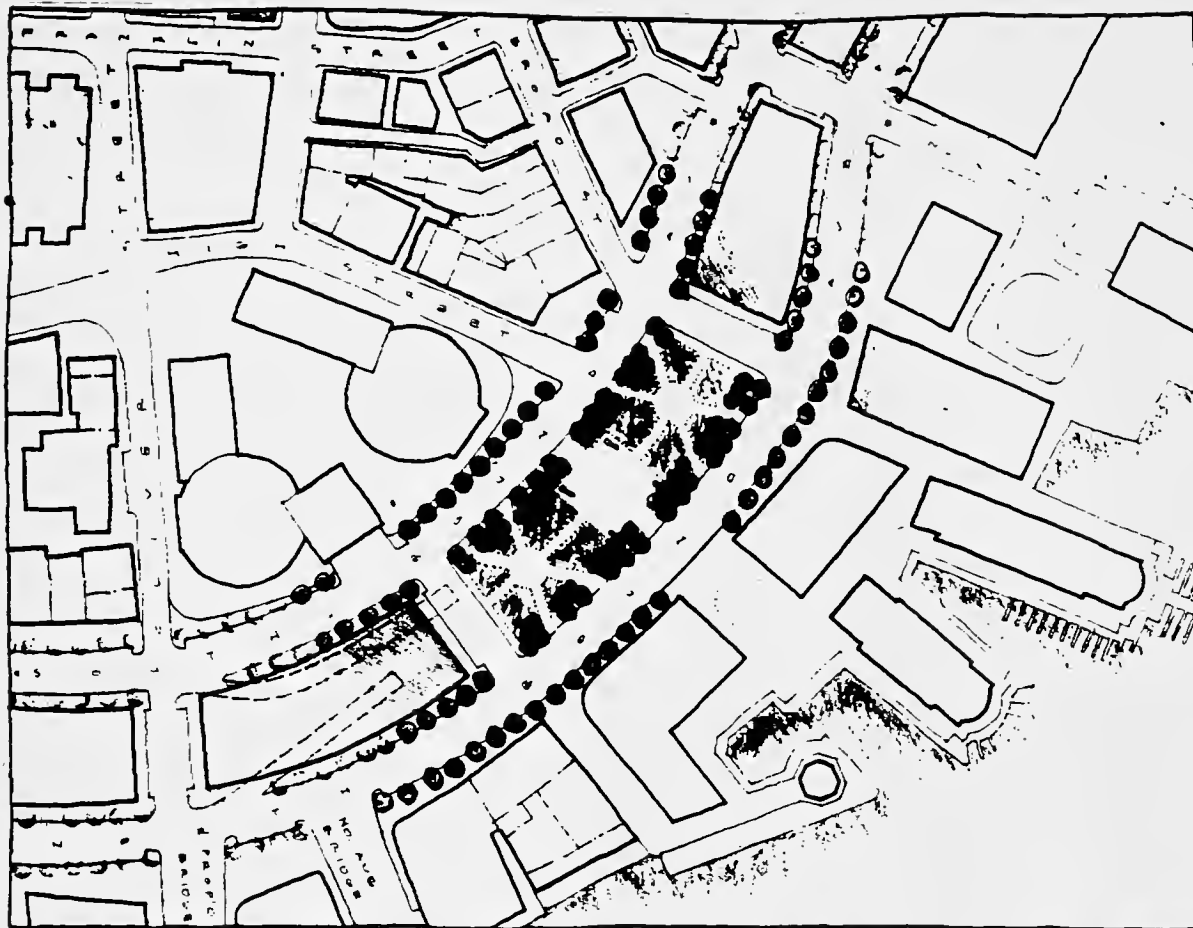
3. Fort Hill Square



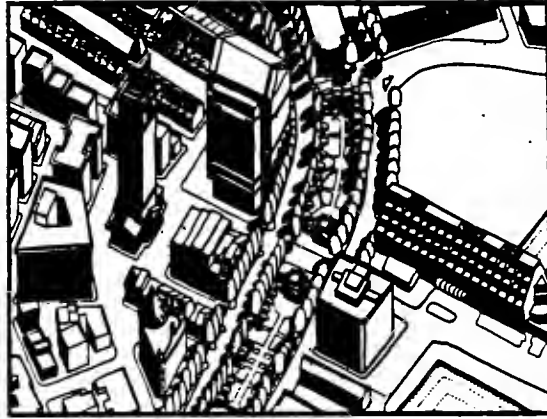
3. Fort Hill Square

As the historic photograph illustrates, the original Fort Hill Square -- dramatically oval in plan -- was a charming and urbane space on the site of what is now International Place. But it was the construction of the Central Artery and not International Place which caused its disappearance. Like the hill for which it was first named, and which it replaced, the actual geographic setting cannot be retrieved. But today's Boston has a very good spot for a new Fort Hill Square; between International Place and Rows Wharf. As such, a measure of historic continuity can be achieved. In name recalling the old hill and square nearby, the new Fort Hill Square would perform an important contemporary role of providing a distinguished public setting between these two new city landmarks.



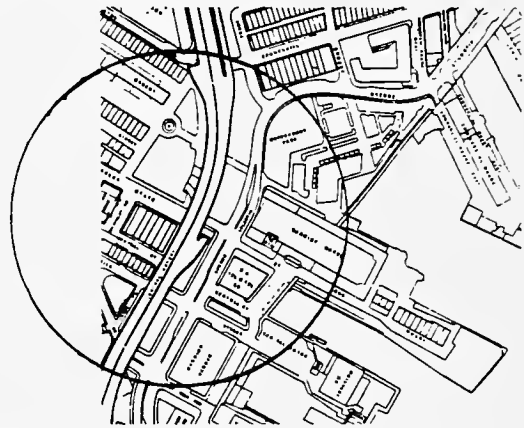


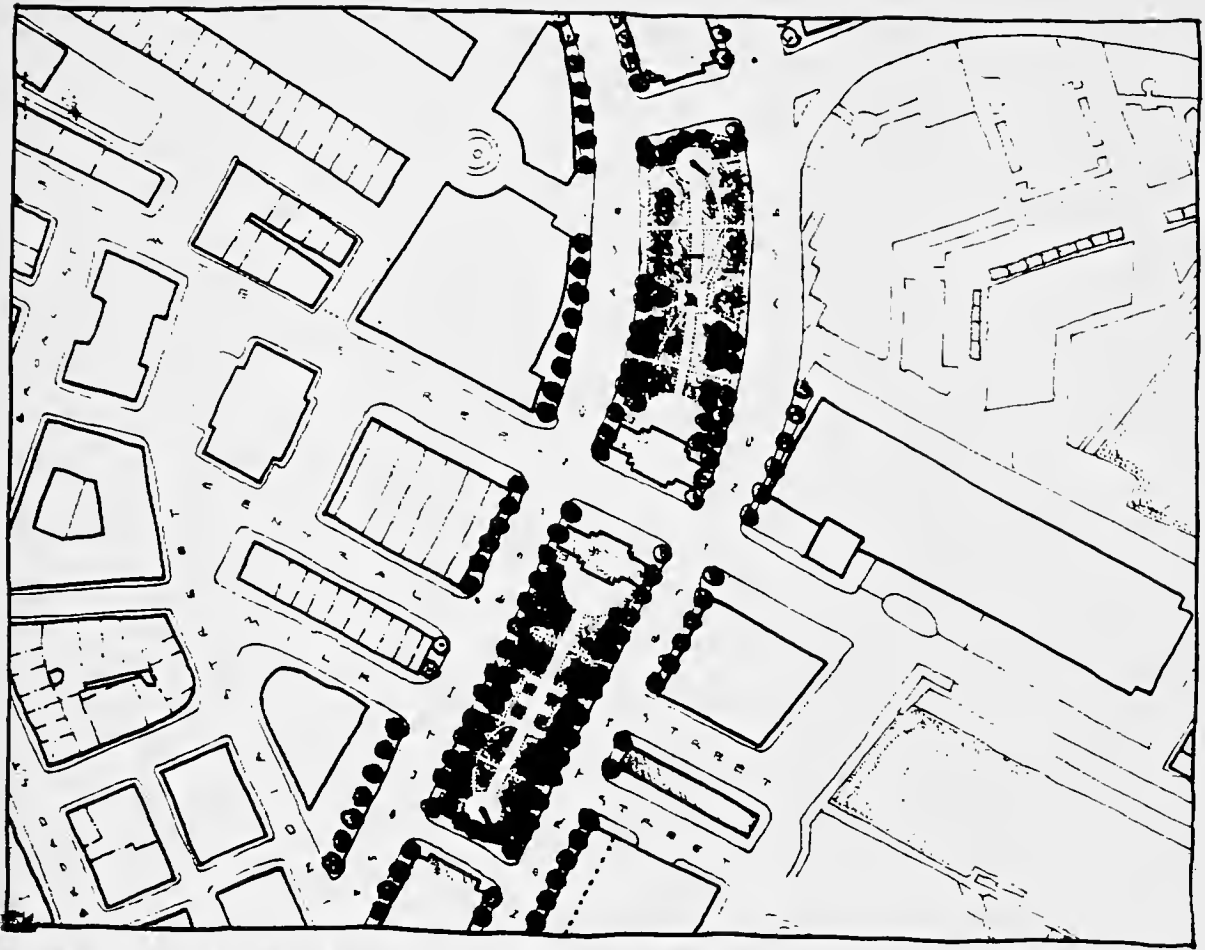
4. King's Square & 5. Queen's Square



4. King's Square & 5. Queen's Square

If a specific path may actually be said to denote Boston's mythic "walk to the sea," then its axis must surely be State Street; Boston's first great street. It was initially named King Street and its role -- as befitting its name -- was to carve a path from Long Wharf to the New World. Today the artery parcels to either side of State Street are heavily travelled by Bostonians and visitors alike connecting as they do the Customs House District and the Quincy Markets to Columbus Park, the Aquarium, Long and T Wharves and yes, the sea! How better to celebrate and facilitate this important movement corridor than by twin flanking parks reinforcing the venerable State Street axis.





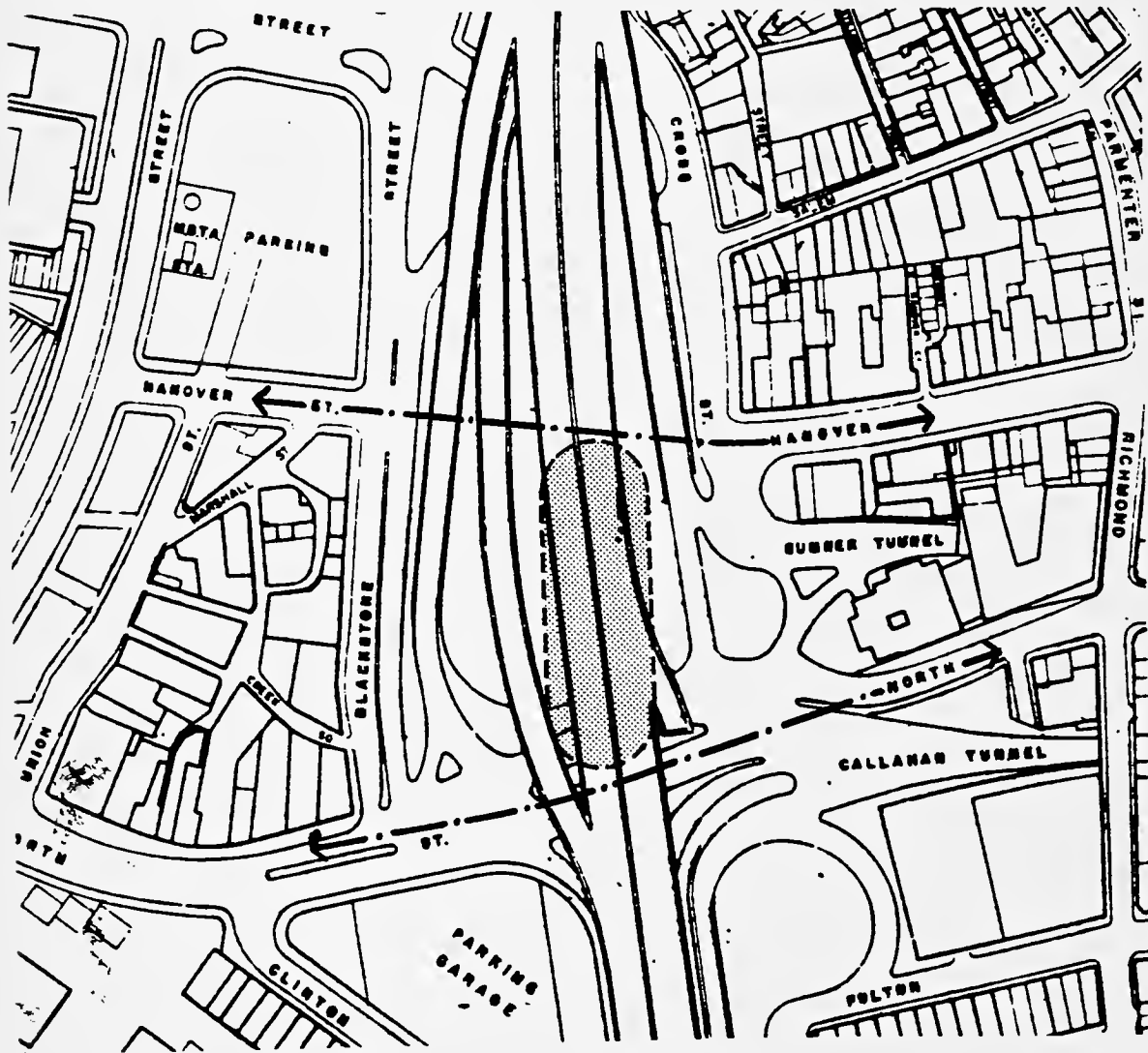
6. Haymarket Square

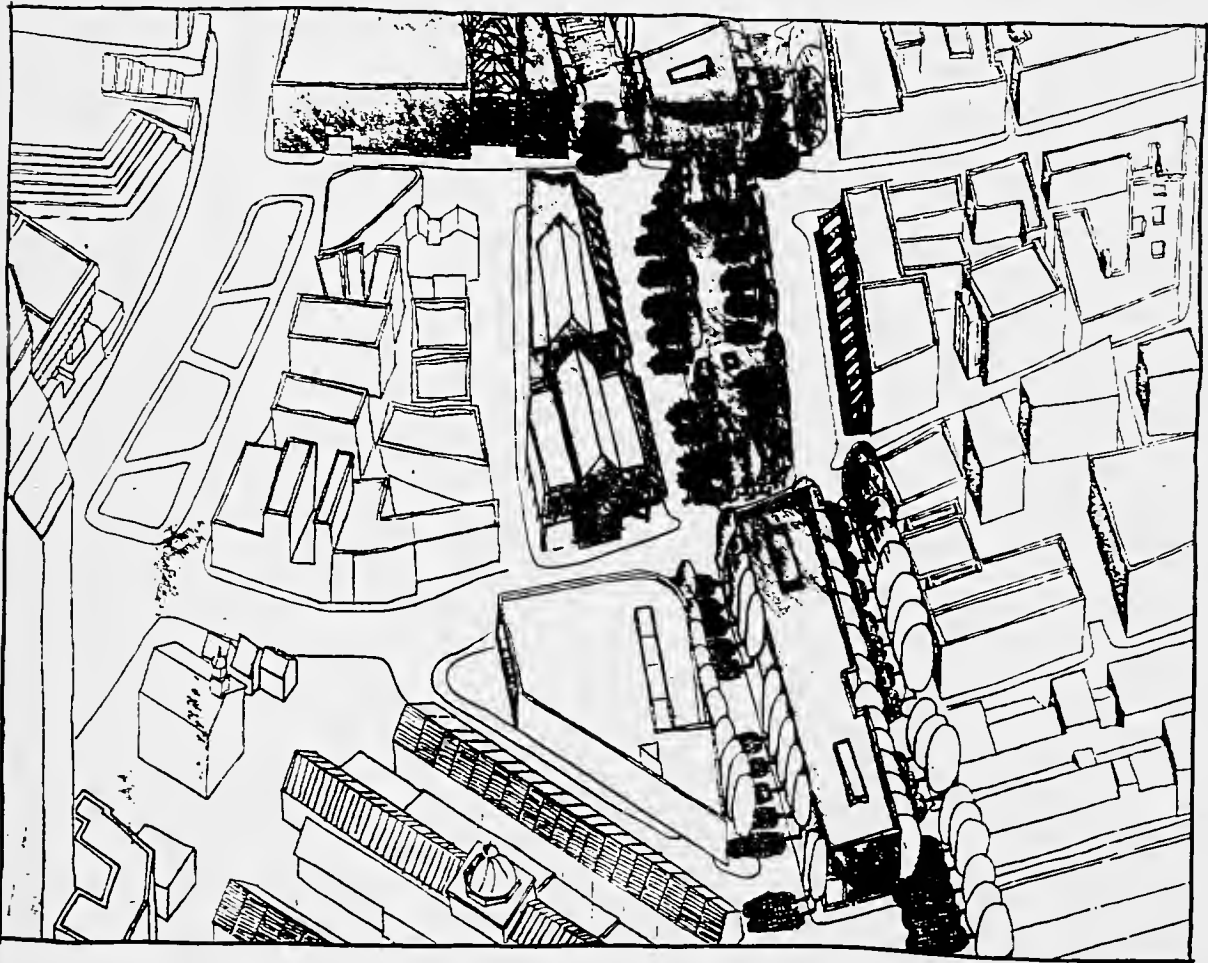
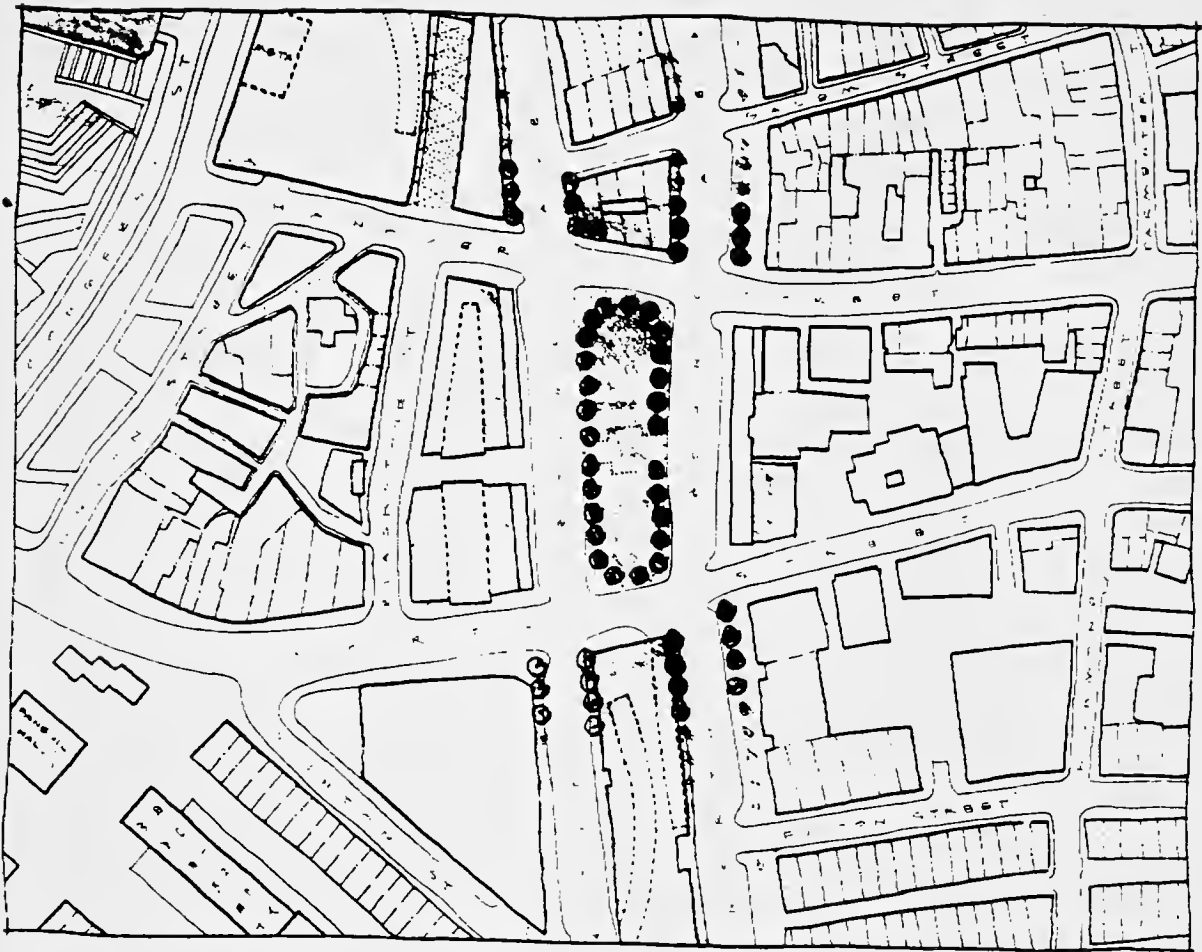


6. Haymarket Square

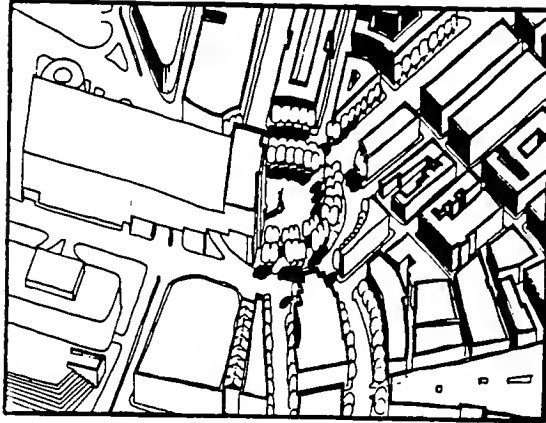
The original 19th century location of Boston's Haymarket Square was at the apex of the Bulfinch Triangle, now somewhere underneath the Government Center Garage. Today's Bostonians more commonly associate the Haymarket not with a square but with the open air produce markets nestled between the Blackstone Block and the artery. This location, too, will soon have to change to make way for the artery reconstruction. Despite the changes in location the Haymarket has maintained a strong association with the North End. Thus, a fitting setting for a new Haymarket Square would be between the North End and the Blackstone Block, bracketed by Hanover and North Streets.

The demolition of the elevated artery will herald not only the removal of a physical barrier between the North End and the rest of the city, but it can enable the realization of a proper gateway to the North End, in the form of a new Haymarket Square.





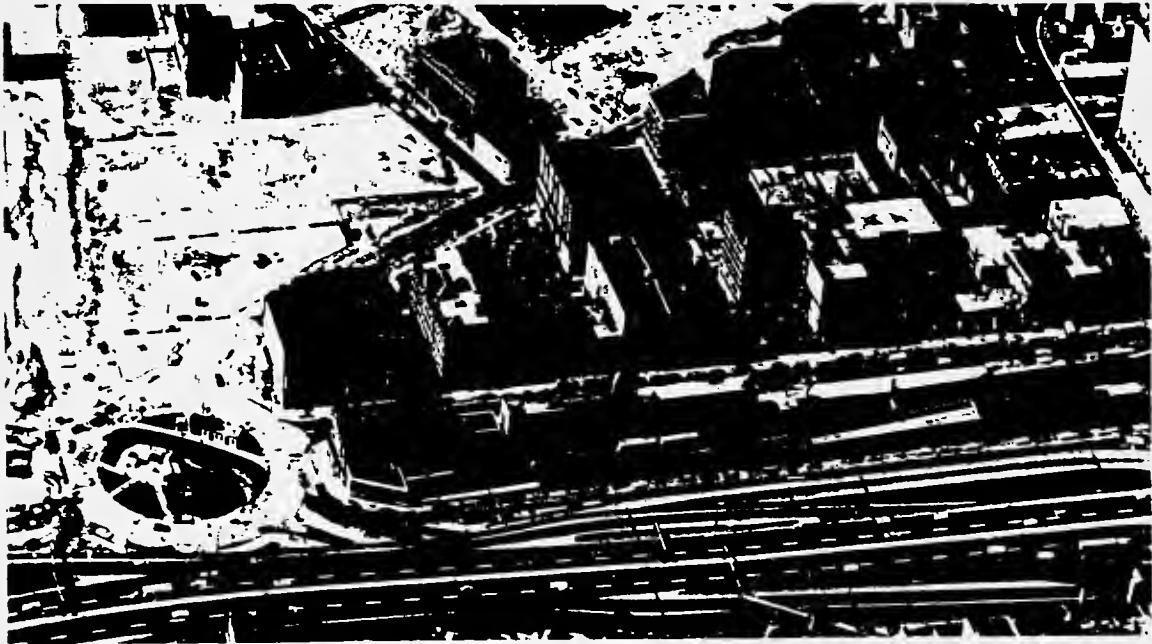
7. Bulfinch Square

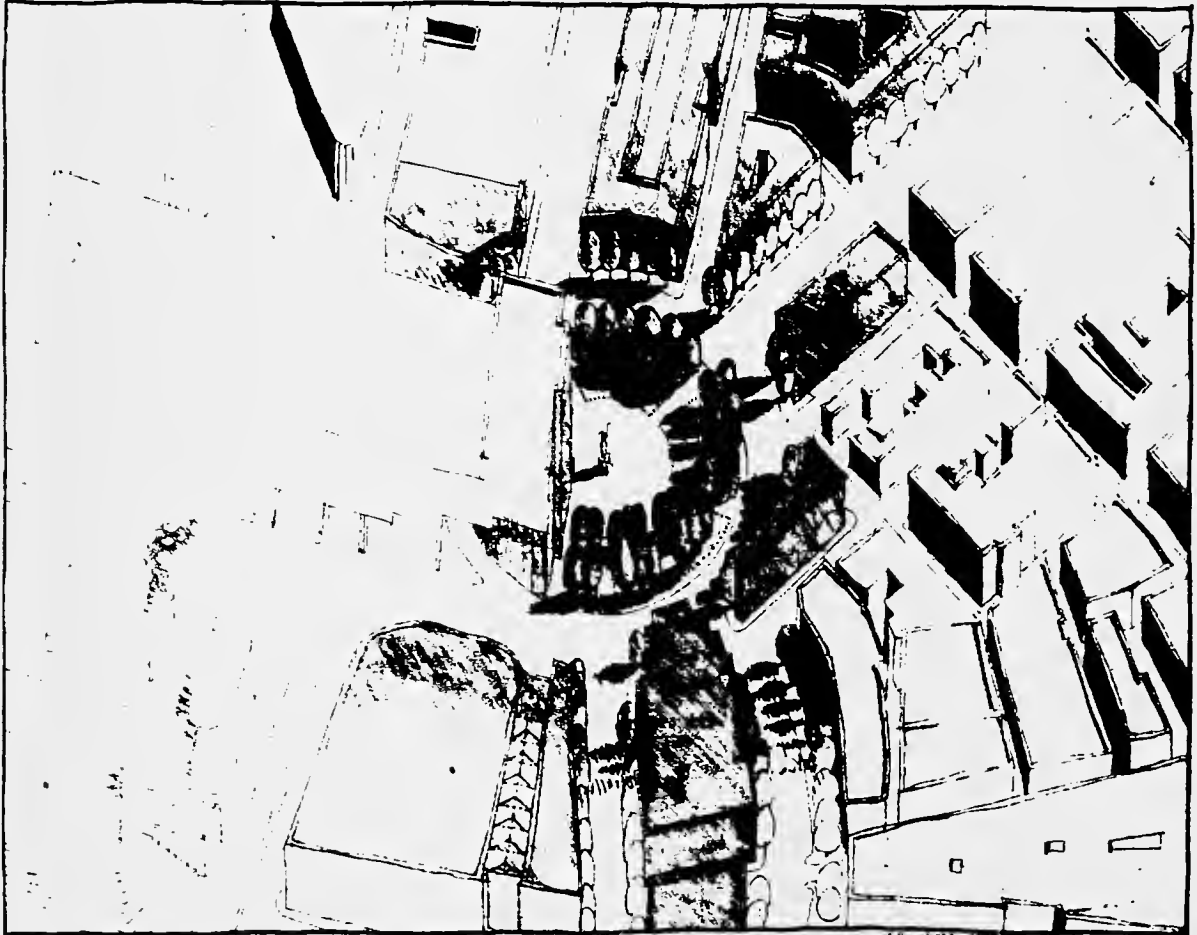
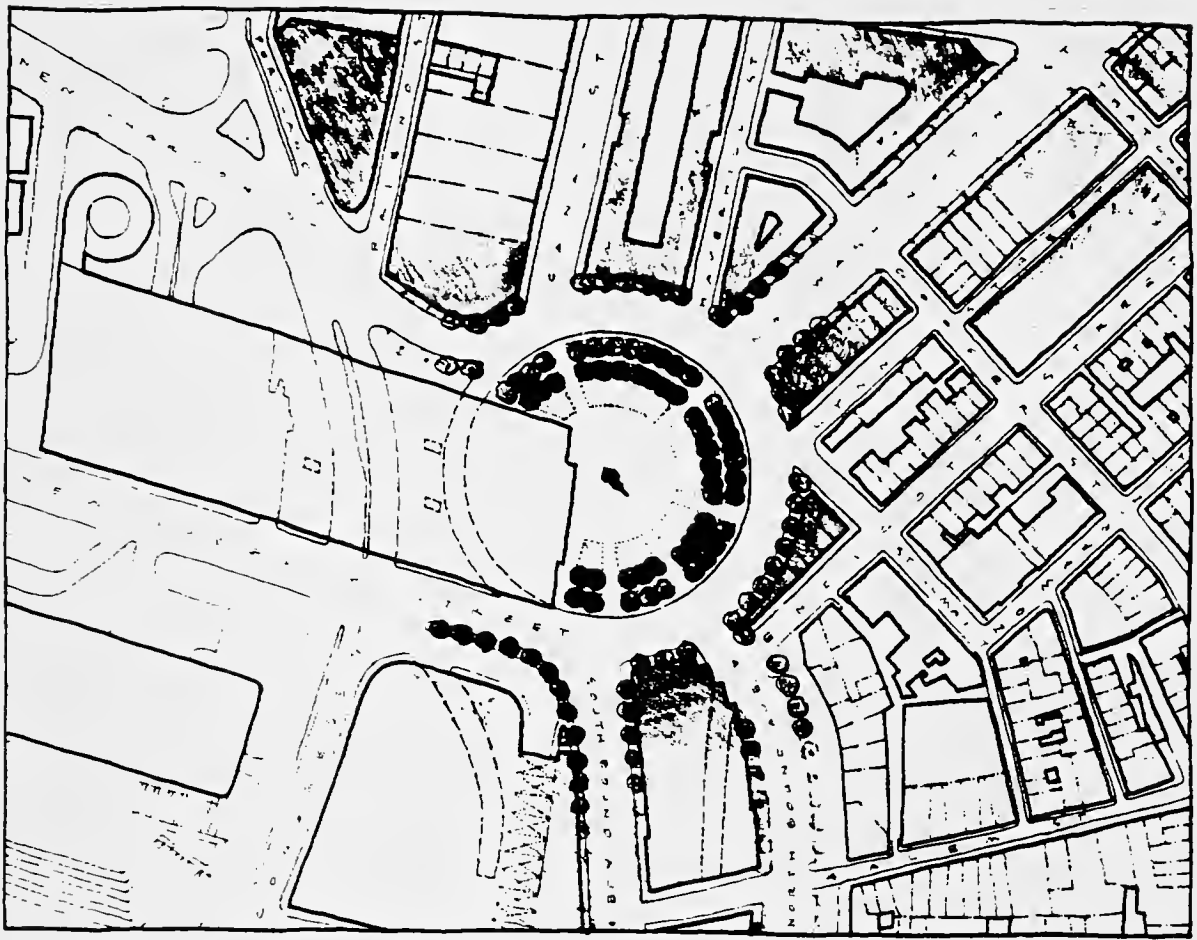


7. Bulfinch Square

The depression of the Central Artery will allow the partial restoration of the historic fabric most harmed by its construction; the eastern half of the Bulfinch Triangle. The restoration should include a major new open space for the triangle of the caliber of the one which Bulfinch originally located at the apex of the triangle in his great 1804 plan. It served Boston admirably for well over a century. This was the site of Boston's original Haymarket Square, more recently of a traffic rotary (as the 1963 photograph describes) and finally of the Government Center Garage -- the recent transformations not being a very laudable example of urban evolution.

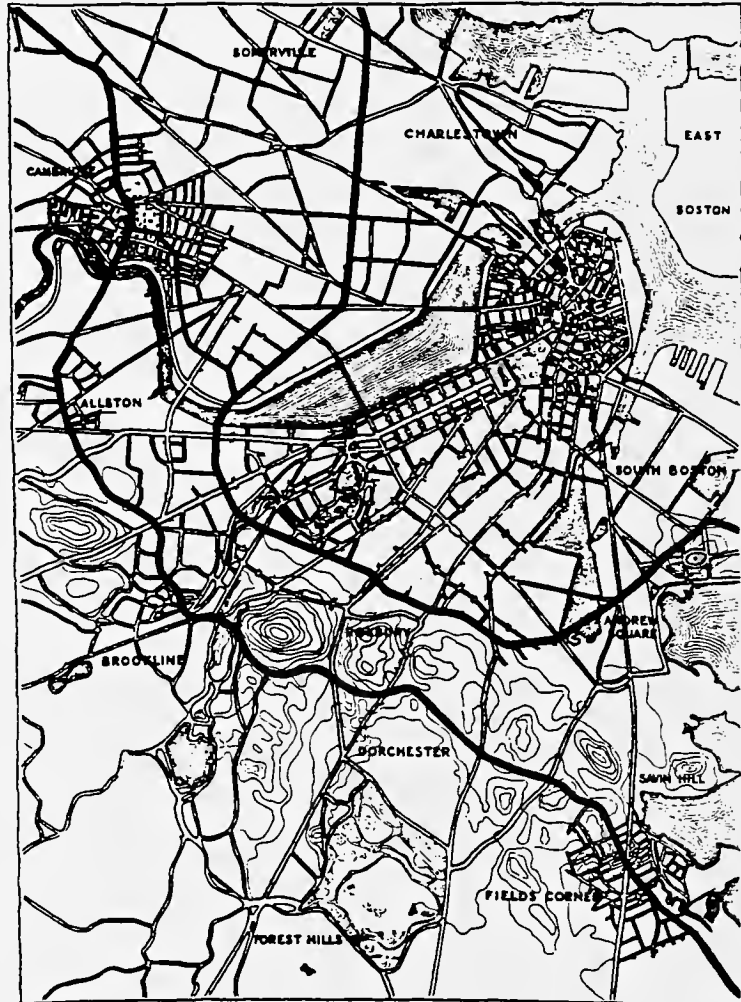
Since a new Haymarket Square is more fittingly located as part of a gateway to the North End, the new square for the Bulfinch Triangle might bear the name of its original proponent.





Appendix: Historic Background to the Central Artery

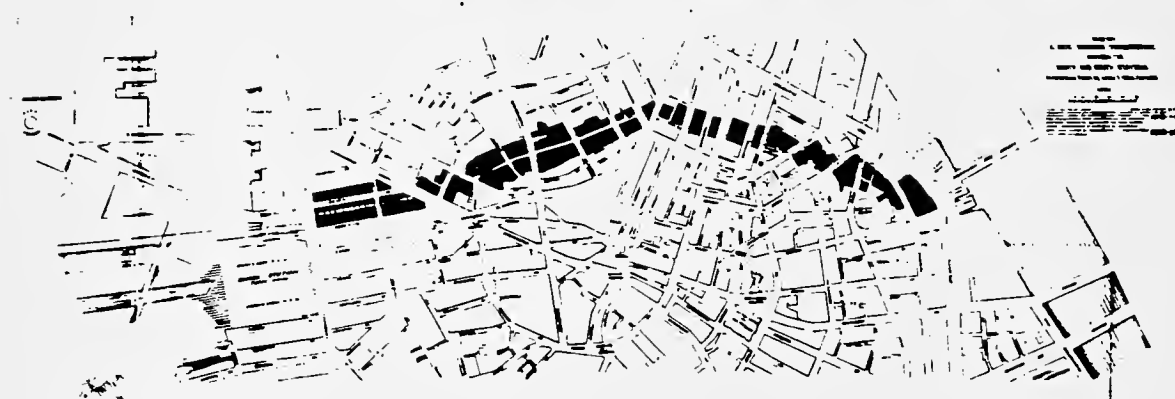
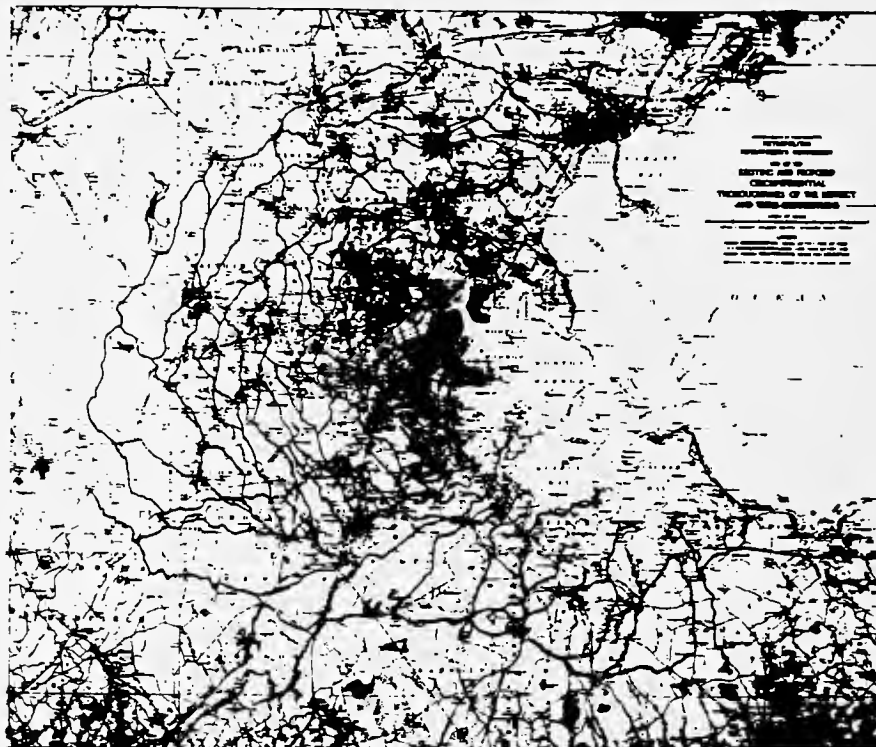
The antecedents for the Central Artery date back to the turn of the century. It became clear that a regional transportation network for the growing city would depend on the ability to connect the radial roads which emanated from the Shawmut Peninsula by a system of circumferentials. Within the downtown--ably served by east-west streets stretching toward the waterfront--the key was to improve the means of movement in the north-south direction, particularly between the burgeoning railroad terminals at North and South Stations.



1. Proposed Inner and Outer Boulevards, Boston Society of Architects, 1907. One of the earliest diagrams describing the need for circumferential boulevards to connect Boston's radiating spokes. The outer boulevard represents perhaps the first anticipation of Route 128.

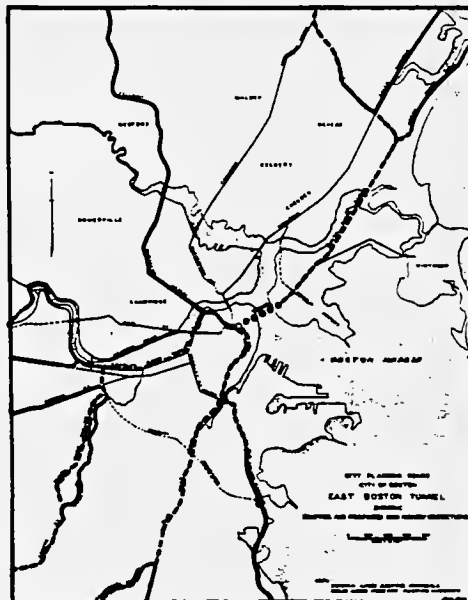
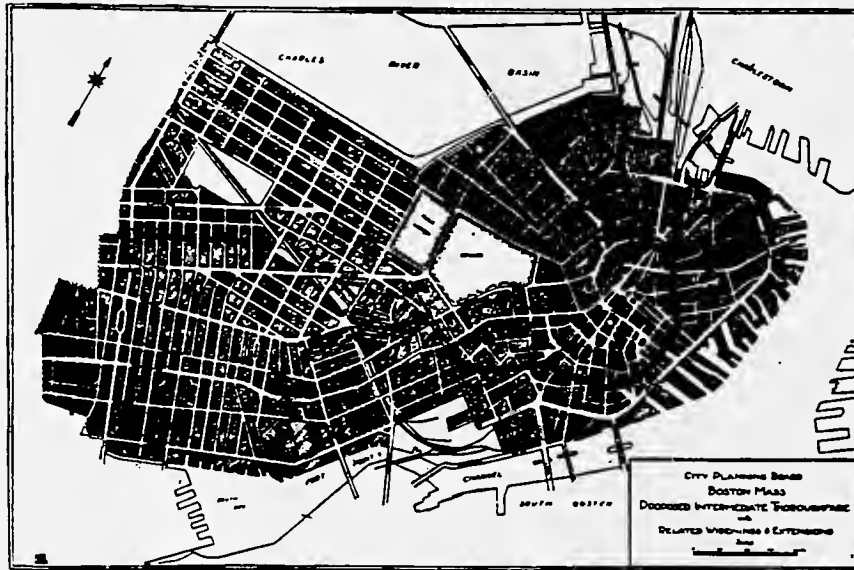
2. A System of Radials and Circumferentials, Arthur Shurtleff, 1909.

The most visionary transportation plan for Greater Boston was produced for the 1909 Joint Board for Metropolitan Improvements. Shurtleff's scheme was simple and logical: To widen the radial roads emanating from the core and to intersect them at regular intervals with a series of concentric ring roads.

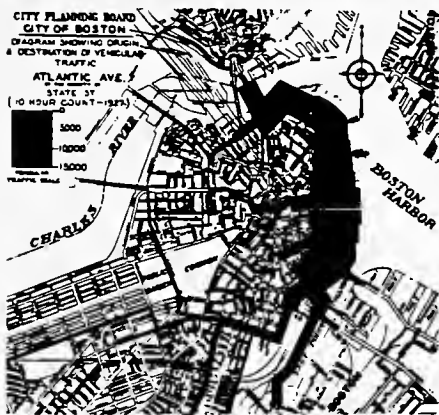
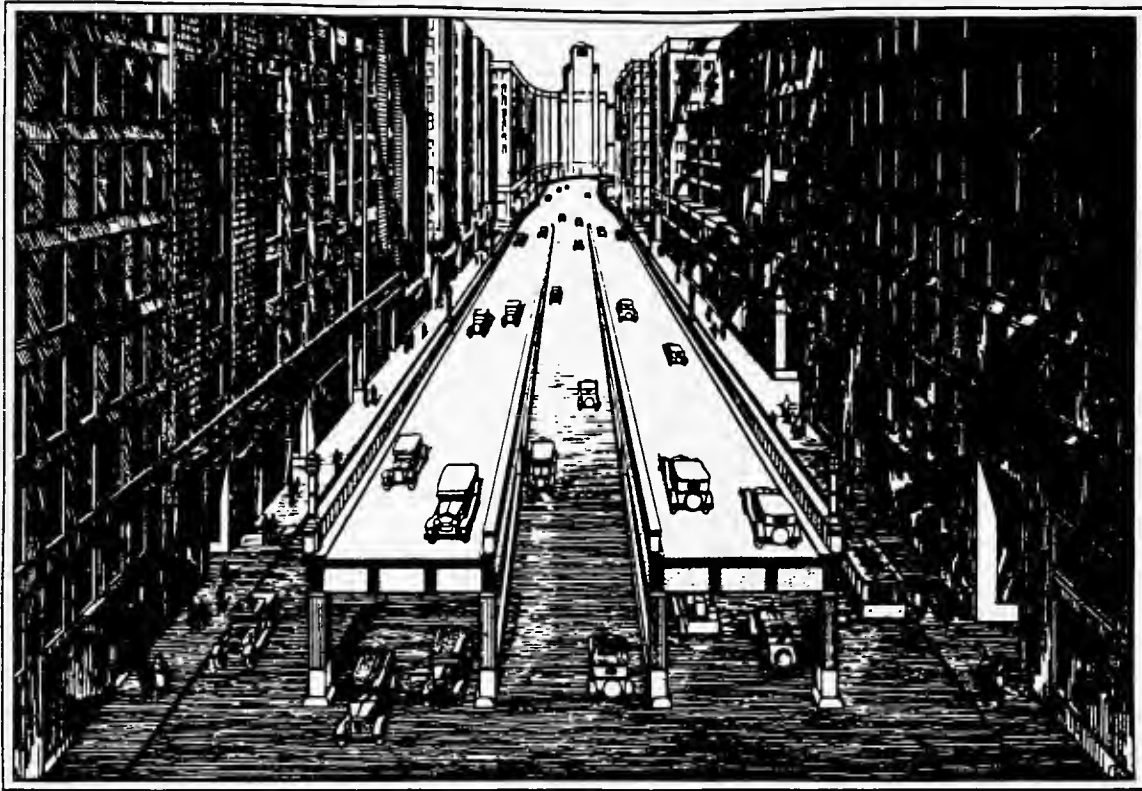


3. A New Business Thoroughfare Between the North and South Stations, 1910. This is the earliest direct ancestor of the Central Artery. It was proposed along with a plan to connect the two terminals via an underground rail line. A grand boulevard was what the 1910 Metropolitan Improvements Commission had in mind.

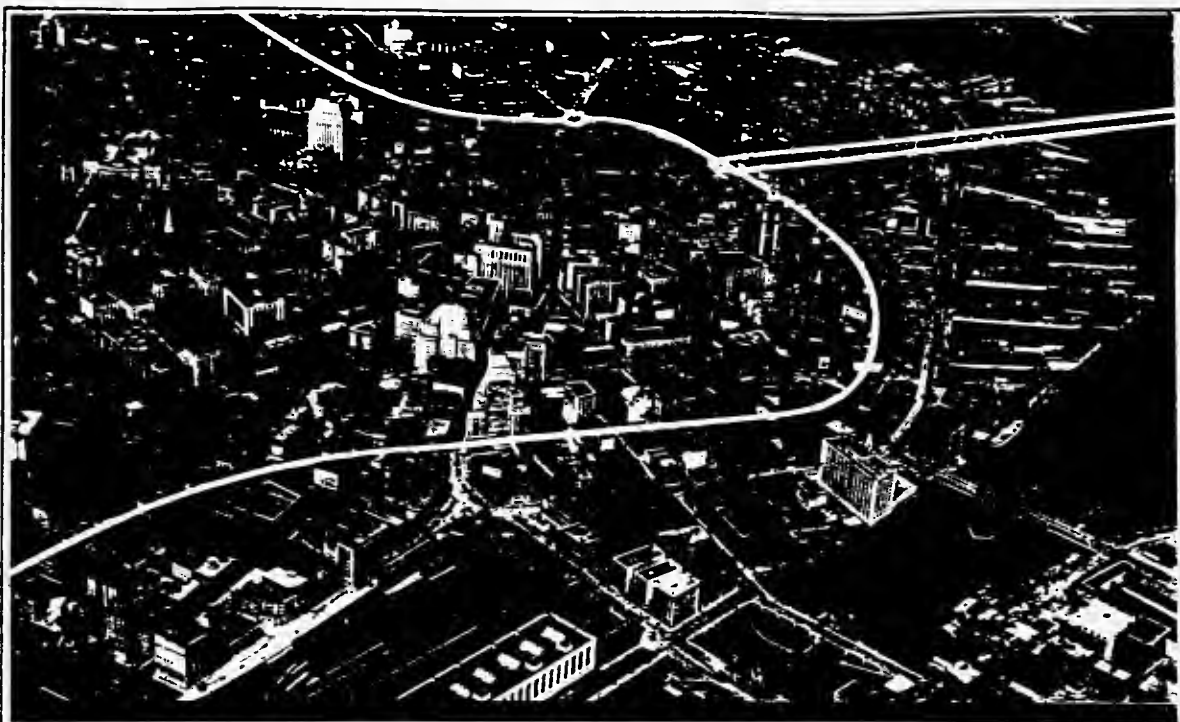
4. Proposed Intermediate Thoroughfare, Boston City Planning Board, 1925. By the early 1920s the alignment for the future Central Artery was already well established, some 30 years before the highway would actually be built. During the '20s the thought was still of a grand new north-south street rather than an elevated highway.



5. Main Highway Connections, Boston City Planning Board, 1928. By the later 1920s the web of arterials first envisioned by Shurtleff was beginning to take shape as official city planning policy.



6. Sketch (and Statistics) for the Central Artery, Thoroughfare Plan, 1930. The 1930 Thoroughfare Plan was among the first to rely on extensive statistical data gathering and projection. Its pages were well armed with facts in support of the road-building recommendations. Graphically the origin, destination and desire-line diagrams seem to pave over the entire city and, some have argued, led to just that. The perspective sketch first shows an elevated structure rather than a broad street. What few remember now is that mid-century Bostonians were used to elevated transportation infrastructure. Indeed, it was not until 1941 that the tracks over Atlantic Avenue were torn down. The elevated artery was to be but a modern substitute for the outmoded elevated tracks. It took another twenty years for construction to begin, by which time new dimensional standards and greater traffic flow forced a much larger scar through the city and one quite difficult to heal.



THE CENTRAL ARTERY POINT 3 IN THE 4 POINT PROGRAM

What the Central Artery Is

A 6-lane elevated express highway from Cambridge over the Charles River Dam passing close to North Station and adjacent to the Sumner Tunnel Plaza; thence through the market district; thence skirting the financial district and proceeding south past South Station; and thence along the line of Albany Street to Massachusetts Avenue, where it will come to grade, and continue on the surface to a point on Blue Hill Avenue between Washington and Seaver Streets.

Ramps will be provided at strategic points, and express connections to serve the twin tunnels to East Boston.

Below the elevated highway will be a new 8-lane surface street from Charles River Dam to a point near Massachusetts Avenue.

Why the Central Artery Is Needed

To carry a daily traffic of 60,000 vehicles in and out of Boston. Two-thirds of this traffic is registered outside the City of Boston.

To provide for an estimated 7,500 vehicles per day of through traffic having its origin and destination outside of the Greater Boston Area.

To relieve narrow surface streets in the congested district. The new 8-lane surface street is expected to carry 30,000 vehicles per day.

To speed up truck traffic and thus reduce the cost of doing business.

To break the worst traffic bottleneck in New England.

7. "A Four-Point Action Program"- Greater Boston Development Committee, 1946. A Committee of prominent businessmen -- an early version of the current Artery Business Committee -- published this pamphlet in order to encourage the City and Commonwealth to proceed with their transportation plans. The four points for action were: 1. Off Street Parking; 2. A Second Tunnel Across the Harbor; 3. Building the Central Artery; and 4. Generally Improving Connections to East Boston.

Proposed Central Artery Legislation

Appendix A to House Number 1612 — AN ACT AUTHORIZING THE PREPARATION OF PLANS FOR THE BOSTON CENTRAL ARTERY.

This bill authorizes expenditure of \$2,000,000 from the Commonwealth Highway Fund for preparation of plans for the Central Artery, as located and described on page 12. It is possible that an appropriation of a lesser amount, such as \$1,000,000, may be sufficient for the first year, with the balance of the cost of plans to be made available by the next General Court.

Preservation of Atlantic Avenue

In 1941, the elevated tracks on Atlantic Avenue were torn down. This created a badly needed wide service street for the docks, warehouses and market structures that line its sides. Atlantic Avenue now carries 32,000 vehicles per day — 30 per cent more than before the elevated was removed.

It has at times been proposed that the elevated central artery should be constructed on Atlantic Avenue. This would mean erecting a wider and heavier structure than the old elevated. The effect would be to cripple Atlantic Avenue worse than before and prevent it from carrying its necessary traffic load. This proposal is a step backward. Forward steps are needed.

It has also been suggested that an elevated *toll* highway be built along Commercial Street and Atlantic Avenue, from North Station to South Station, as a substitute for the Central Artery. There is no example of a toll highway in the downtown district of any city. It would appear that there are so many alternate routes available that too few vehicles would pay toll to ride on such a structure. However, a thorough economic study of this proposal is being made, so that the people of Massachusetts may have assurance that no sound alternate to the Central Artery has been overlooked.

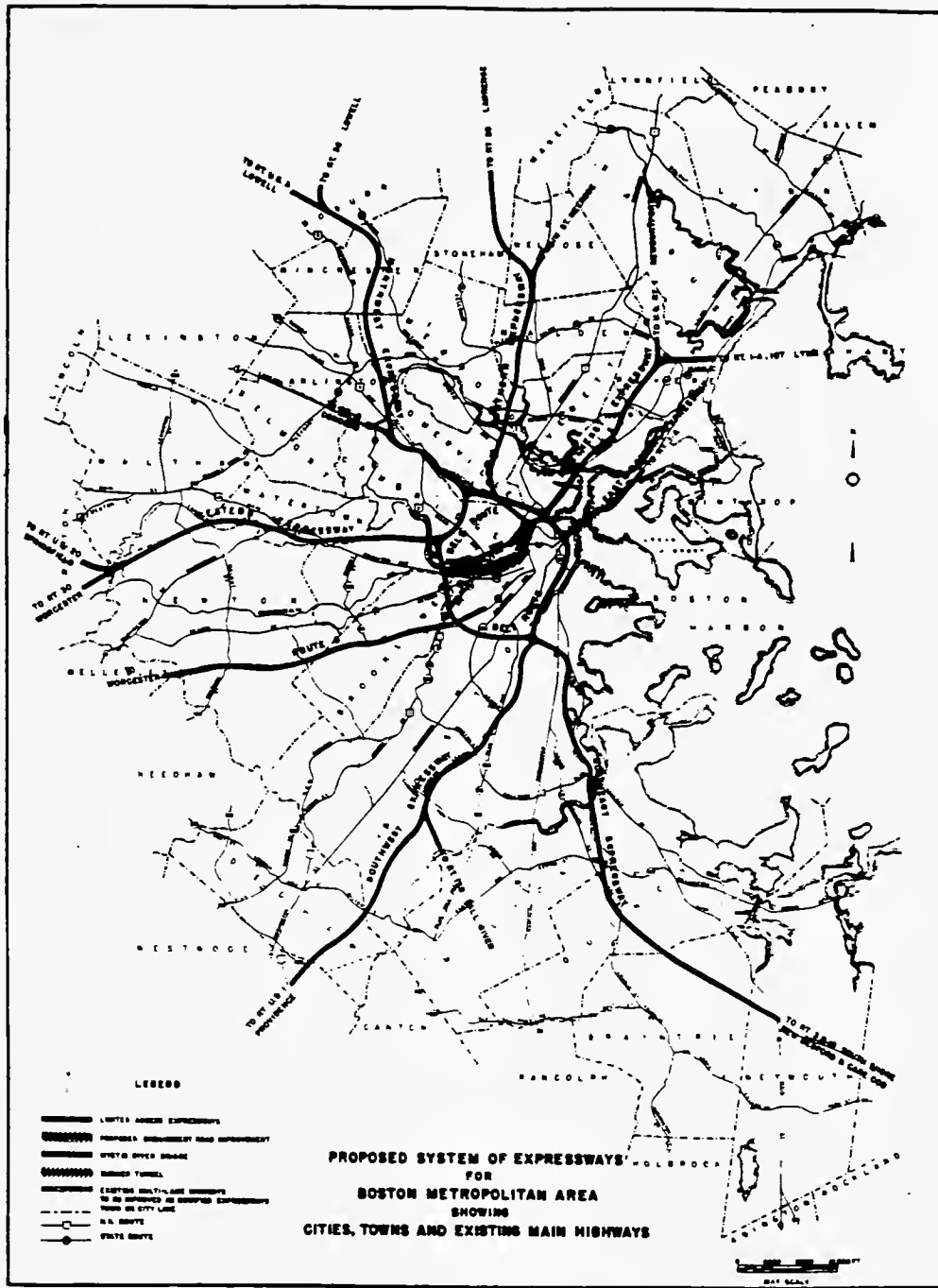
The Central Artery will take a year to plan in detail, and up to six years to build. It is time to get started.

(ATLANTIC AVE. BEFORE)

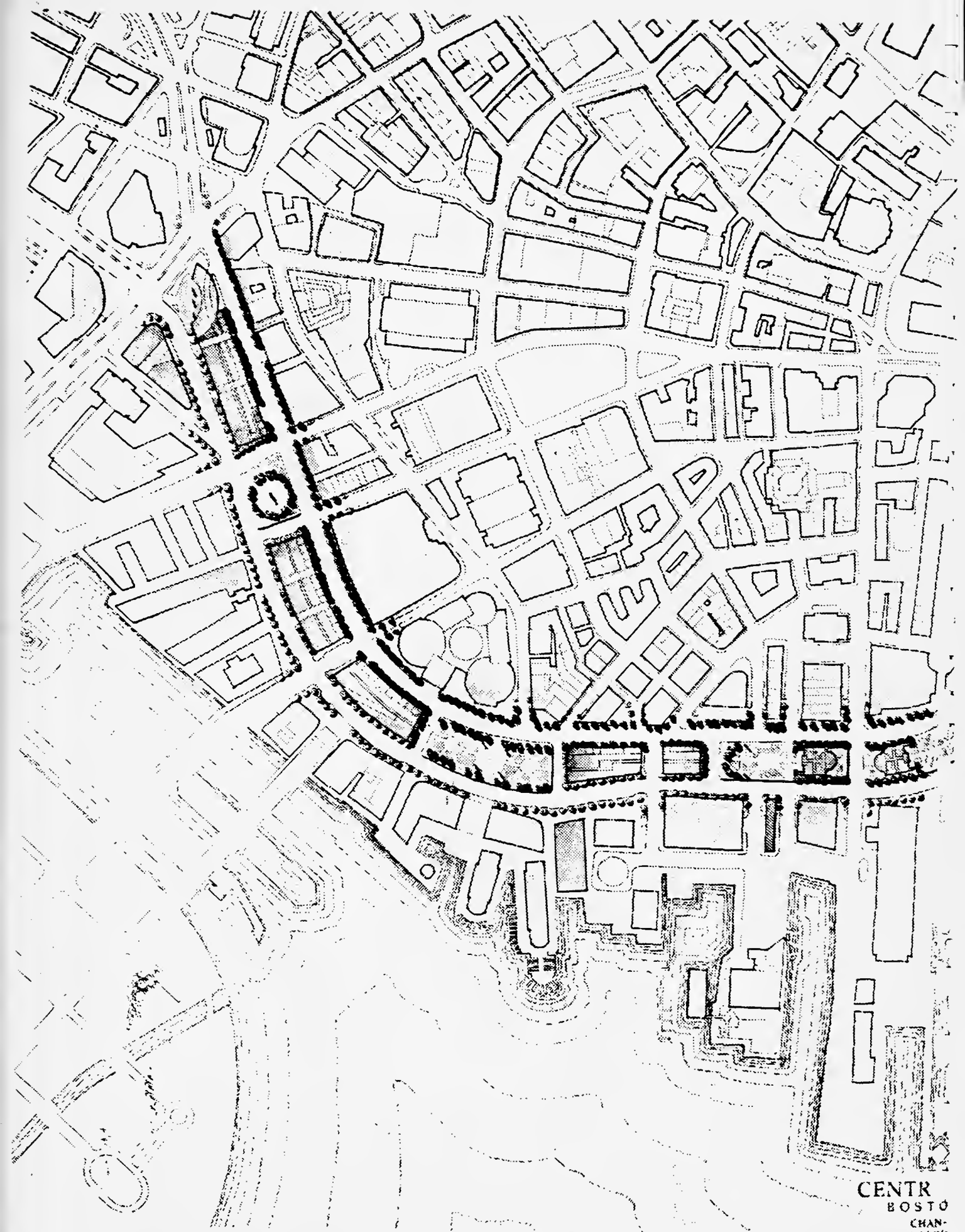
Boston Record-American

(ATLANTIC AVE. AFTER)





8. Preliminary Report on the Master Highway Plan for the Boston Metropolitan Area, 1947. By the late 1940s a comprehensive metropolitan highway plan established the essential regional role that the Central Artery would play as a part of the now infamous and never-to-be-completed Inner Belt Highway. The actual construction of the Central Artery was a mere five years away, but more than fifty years had already past since such a route was first identified.



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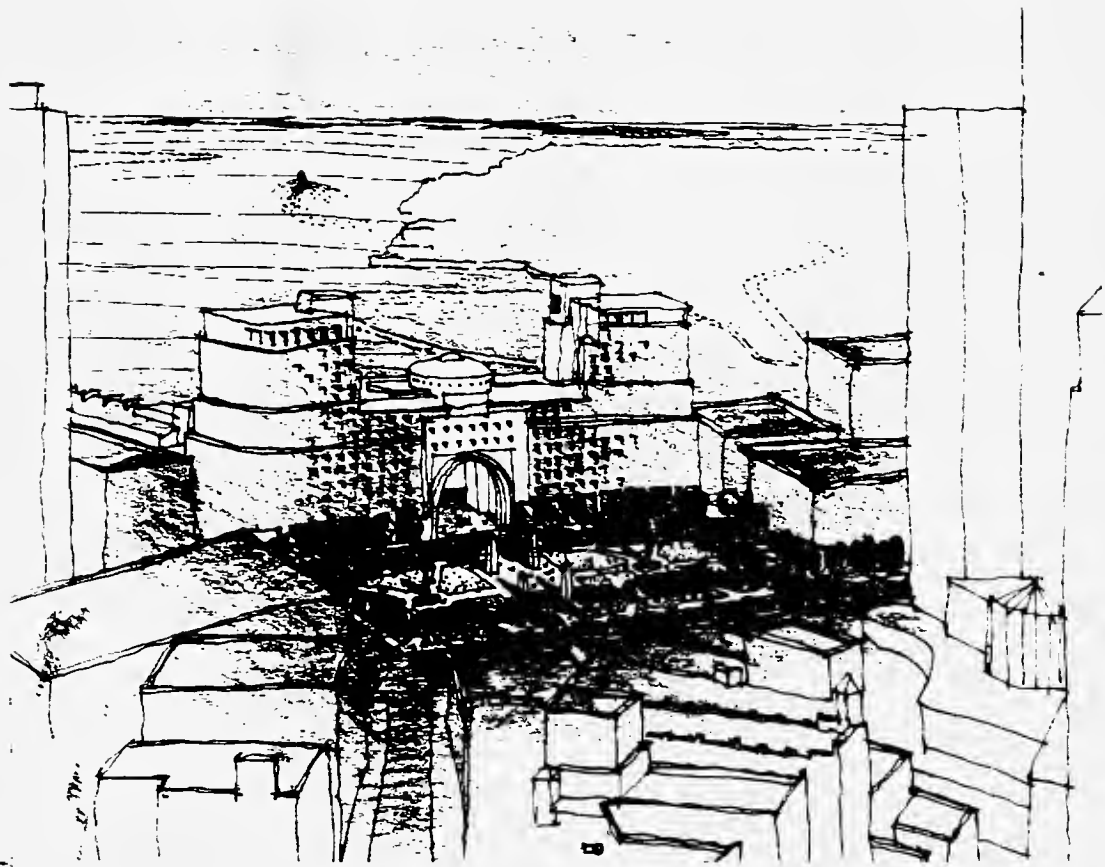
for:

The Boston Redevelopment Authority
Stephen Coyle, Director

by:

Chan Krieger, Levi Architects, Inc.
1132 Massachusetts Avenue
Cambridge Massachusetts 02138

Alex Krieger, Project Director
Thomas C. Levi
Alex Anmahian
Peter Osler
Thomas Sieniewicz
Ingrid Strong
Robert Rink



2234 805

